

Incident No.	Description
2000-001	Approximately 2.5-3.0 m <sup>3</sup> crude oil leaked from the Norman Wells line 21 at IJ point KP 839. The leak was contained on Enbridge property within an area 30' x 100'. The leak occurred as a result of a switch failure on a sump pump.
2000-002	At approximately 1:00 p.m. on 04 January 2000, a safe work permit was issued by Westcoast to two Quinn Contracting technicians for the installation of roofing truss bars in the river water pump house at the McMahon Gas Plant. A Quinn toolbox safety meeting report was written and signed by the two Quinn technicians who then drove from the plant to the pump house. The roofing truss bars had been previously disconnected in order to facilitate the removal of pumps within the pump house. The roof trusses were approximately 21 feet from the floor. Upon arrival at the pump house, each Quinn technician set a ladder against the support beam located approximately 19 feet from the floor, climbed the ladders and tied the top of the ladder against the support beam. Standing on the beam with their lanyards anchored to the beam, the workers reconnected and tightened one of the trusses in place. Quinn technician #1 disconnected his lanyard. Quinn technician #2 untied the rope that secured the ladder against the support beam and descended the ladder. Both technicians moved their ladders to the next location and ascended their ladders. Quinn technician #1 was attempting to tie off his ladder when the bottom of the ladder slipped out. Quinn technician #1 fell approximately 18 feet striking his back and ribs against the top of a pump (approximately 8 feet from the grade) before hitting the floor on his feet and coming to rest face down. Quinn technician #2 descended to help Quinn technician #1 and phoned his foreman who phoned the Westcoast ambulance for medical aid. Quinn technician #1 was transported to hospital.
2000-003	On 18 January 2000, Mr. [REDACTED] an instrument mechanic and employee of WEI, fell off an extension ladder while calibrating a fire eye in the sulphur plant within the McMahon Gas Plant in Taylor B.C. As a result of the fall the employee sustained a fracture to his right leg, minor head and elbow injuries and 2nd degree burns to his left hand.
2000-005	<p>An incident occurred on 03 February 2000 at 23:45 when a brine string in one of the NEB regulated caverns failed. This resulted in approximately 20 bbls of high pressure propane migrating up the brine string. The facilities are designed to prevent any serious effects from resulting in such a case. A high pressure alarm on the brine side of cavern E3 activated the high pressure shut down to the ESDV's. The amount of propane that accessed the brine lines prior to closure of the ESDV was minor and was flared through the flare and burn pit, as per the system design. Amoco followed their emergency response procedures which included calling fire department officials who remained onsite until the controlled burn had been completed. The incident did not result in any damage to persons, wildlife, habitat, or the environment. All damage was restricted to the string within Amoco's underground salt caverns and there was no damage to any surface facilities.</p> <p>After the incident, Amoco de-pressurized the cavern by transferring the remaining propane to another cavern. Amoco has since determined that the brine string was sheared off at approximately 1388' below ground level and inside cavern E3. Damage was limited to the brine string in the cavern. Amoco suspects that the string failed due to shearing caused by a shale collapse. Amoco plans to replace the damaged brine string and tentatively scheduled to replace the brine string in May. This is a routine procedure.</p> <p>Refer to MO-25-86 for proper name.</p>

2000-006	<p>On 8 February 2000, at Express Pipeline's Hardisty Station (KP 0.0), sweet crude oil was discovered within the berm on tank 104. Upon visual inspection, the oil was found to be leaking from the mixer seal on tank mixer 104. The tank was taken out of service until repairs were completed on 13 February 2000.</p> <p>Two vacuum trucks were called to the scene to clean up the spill site. One vacuum truck was used to attend the oil leaking from the mixer seal. A half barrel was placed under the mixer and the vacuum truck drew up 6 m<sup>3</sup> of oil. The second vacuum truck was to attend to the oil that was present on the ground within the berm. The amount of oil that was determined to be on the ground is estimated to be 3 m<sup>3</sup> and the rate at which the oil leaking from the seal is estimated to be at 1 gallon per minute.</p> <p>Final site clean-up began on 10 February 2000. A track hoe and hydrovac were used to clean up the contaminated soil. Approximately 48 m<sup>3</sup> of contaminated gravel was removed and hauled for disposal. The bentonite liner was not damaged by the clean up due in part to the frozen ground conditions. The contaminated material and oil was sent to Beulah Tec for processing.</p>
2000-008	<p>On 21 February 2000, 16:00 hours Central Standard Time (CST), a TransCanada employee heard natural gas escaping during a routine site inspection at MLV 16. Upon closer examination, it was determined that the NPS ¼ pressure relief valve on the power gas pressure regulator for the 2:3 downstream tieover valve gas hydraulic operator was leaking. The regulator assembly was found to be frozen. The power gas supply was immediately shut off and the tieover valve was isolated as per TransCanada's Tag and Lockout Procedure. The regulator assembly was removed for further testing. A negligible amount of gas was released to the atmosphere. There were no injuries reported.</p> <p>On 23 February 2000, a nitrogen test was conducted on the regulator assembly in order to determine the cause of the incident. The test revealed that the pressure relief valve was functioning properly and that the regulator froze as a result of a leak in the low-pressure shutoff device (air relay valve). Consequently, the air relay valve was replaced on 23 February 2000, at which time the power gas supply to the gas hydraulic operator was restored and the tieover valve was unlocked and readied for service.</p> <p>TransCanada analyzed the faulty air relay valve and discovered that the o-ring that seals the shaft of the device had migrated from its groove, and that the plastic bushing above this o-ring that allowed the shaft to move freely was loose and had shifted from its original position. TransCanada inspected 27 other air relay valves in Saskatchewan in conjunction with its annual valve maintenance program, and discovered that five of the devices showed signs of similar problems with the o-ring, although none were leaking. Further investigation revealed that two designs are used for securing the o-ring in place: one design secures the o-ring through a tight fit between the stem and the spring retainer, while the other design secures the o-ring with a plastic bushing. It was determined that the plastic bushing type design was used in the device involved in this incident as well as the 5 devices identified by the inspections. TransCanada further noted that the o-ring used in all similar valves on its system are made of specifically developed compound for use on the TransCanada system (to resist deterioration due to operating conditions specific to TransCanada). TransCanada is the only user of this type of valve design and o-ring material.</p>
2000-009	<p>On 01 March 2000 at approximately 17:00 hours CST, TransCanada experienced a failure of a discharge blow down pressure switch on the "E" plant after-cooler. This incident resulted in an unintended release of natural gas through an NPS 6 blow-down valve. The gas was released to atmosphere for approximately two minutes. The Programmable Logic Controller (PLC) initiated a controlled unit shut down and isolation of the "E" plant from the mainline.</p>
2000-010	<p>On 2 March 2000, a leak occurred from an NPS 1 fitting on the compressor balance line within Compressor Building No. 1 at the Jenner Compressor Station No. 367. A negligible amount of sweet natural gas was released to the atmosphere. There was no fire, explosion or injury as a result of this incident. The unit was returned to service the day following the incident.</p>



2000-011	<p>On 8 March 2000, a hot cut was performed without incident at Main Line Valve (MLV) 57 Line 2 in order to evacuate gas from the section of pipe between MLV 56-2 and MLV 57-2 in preparation for hydrotest. Using a Lamb air mover, gas was successfully evacuated from the pipe between these valves and a hole was drilled near MLV 56-2 to facilitate gas testing. Tests using calibrated gas detection equipment confirmed that there was no gas present in the pipe at the test hole near MLV 56-2 or in the air being evacuated at the mover at MLV 56-2. When the welder lit his torch 21 metres away from the air mover in preparation for the cold cut near MLV 56-2, there was an ignition at the air mover.</p> <p>The Lamb air mover was being powered by natural gas fed from a tap on the upstream side of MLV 56-2. This results in a flammable gas / air mixture which necessitates precautions be taken to ensure there is no source of ignition. One of the precautions is to ensure there is no residual gas in the pipe when the pipe is cut using a torch. This would result in ignition and a flame traveling through the pipe to the air mover. If and when this occurs, there is an audible bang along with a whooshing sound which indicates that an ignition has occurred in the pipe. In this case there was no noise indicating ignition.</p> <p>External ignition sources to be controlled are stray sparks, static electricity and metal to metal contact causing a spark. The welder was 21 metres from the air mover when he lit his torch and had not proceeded with the cut when ignition occurred. The likelihood that a stray spark from lighting a torch traveled 21 metres to the air mover is remote. The gasket between the flange of the air mover and the blow-off adaptor was present and in good condition preventing a spark from metal vibration. Air movers are electrically grounded preventing the build up of static electricity.</p> <p>As a result of the investigation, TransCanada has concluded that the only possible explanation for an ignition source is a spark generated by static electricity. A ground clamp is used to connect the flange on the air mover with the flange from the blow-off. One possible reason for the spark may have been improper grounding as both the flange on the air mover and blow-off adapter were painted. Thus, there may not have been good electrical contact via the ground clamp with either the air mover and/or the blow-off to the grounding stake.</p> <p>The action of gas moving through an Expeller can result in a build up of static electricity if contaminated with solid or liquid particles (NFPA 77, 2-1.2). Also, on the day of the incident the weather was a bit unsettled which can result in an additional build up of ambient static electricity. During the investigation, TransCanada PipeLines contacted air mover manufacturers to inquire whether similar incidents had been reported when the movers were operated with natural gas. No incidents had been reported.</p> <p>At the time of the incident, TransCanada was in the process of preparing new Gas Handling Procedures. These procedures limit the use of gas for powering the air mover as follows: "If the work site is within two kilometers of the Expeller location, Compressed Air must be used during welding procedures." Another point included in the same section of the procedures is "To prevent a possible static discharge (spark) from occurring during the operation of the Expeller, ensure that the Expeller is properly grounded. This will prevent a possible ignition of the gas." Gas can be used to power the Expeller only by permission granted by the Regional Director and only where high humidity causes freezing off.</p> <p>The new procedures limiting the use of gas to power the Expellers should limit instances where an explosive gas to air mixture would occur in combination with ambient sparks. Grounding remains important as compressed air containing condensed water vapor often manifests strong electrification when escaping (NFPA 77, 6-2).</p> <p>This is the only reported case the Board has on file where gas has ignited while exiting the Lamb air mover. If procedures are followed, the likelihood of recurrence is remote. All other ignitions during pipe cutting operations have occurred due to gas /air mixtures in the pipe at the cutting / welding site.</p>
2000-012	<p>During a corrosion dig, Westcoast staff discovered a leak on the pipeline. (The 4" Montney line, which operates at 4123 kPa or 598 psi, transports sour gas at 3.86% H<sub>2</sub>S.) An analysis by Canspec concluded the leak was the result of a circumferential weld defect and not the result of corrosion, stress corrosion or in-service mechanical damage. It is probable that the defect penetrated the pipe wall from the time of installation but that oxide/slag plugged the outermost narrow part of the passage and prevented leakage. It is probable that the recent sand-blasting dislodged oxide/slag at the outside diameter and caused the leakage.</p>
2000-013	<p>On 28 March 2000, at TransCanada's MLV 90-2 near Mattice, Ontario personnel identified a small leak of natural gas during normal operations. Line 2 was then isolated from MLV 89 to MLV 91 and the section of the mainline was depressurized. TransCanada proceeded to excavate the valve at MLV 90-2 to determine the cause of the leak. TCPL determined that the leak had originated from a below ground valve body bleed fitting. The defective body bleed was replaced with a new body bleed and the section of the mainline was returned to normal service.</p>

2000-014	On 13 April 2000, at approximately 16:01 hours CST, a TransCanada employee was pressurizing the MLV 34-4 jumper assembly through the upstream riser valve when he heard natural gas leaking in the vicinity of the upstream blow-off quick opening high pressure closure. Upon inspection, it was discovered that gas was escaping from one of the pressure warning devices attached to the closure. While the employee was verifying the tightness of the pressure warning device, the threaded NPS 2 nipple broke off. Personnel immediately isolated the jumper assembly and vented the gas to the atmosphere. The assembly was locked and tagged out. The pressure warning device was marked with flagging tape. Other employees at the compressor station were alerted to the occurrence. Repairs were made once the work could be scheduled.
2000-015	On April 13, 2000, at approximately 11:30 hours Central Standard Time (CST), TransCanada experienced an unintended release of natural gas within Plant "C" at Compressor Station #30. This release was a result of a ruptured NPS 3/8 Stainless Steel gas line that supplies the dry seal panel. Station personnel responded to the alarm and isolated the ruptured line within 50 minutes of the initial incident. No damage to the unit or building resulted from this incident. The ruptured line was replaced the following day. Approximately 1350 m3 of natural gas was released to the atmosphere. There were no injuries reported.
2000-016	A pig receiver had a plug blow out of it with an unidentified amount of butane escaping.
2000-017	██████████ pump seal failure resulting in trace leak of NGL liquids. Trace volumes were detected by the automatic electronic detection system which relayed an alarm to the Edmonton Control Centre.
2000-018	On 08 May 2000 at approximately 13:18 hours EDT, a contractor was in the process of pressurizing the 'C' Plant cooler at TransCanada's Compressor Station 77, near Jellicoe, Ontario when personnel heard a gas leak. Upon investigation, personnel discovered the gas was originating from a cracked thread on an NPT 3/4 by NPS 1 1/2 socket weld. The volume of gas released to the atmosphere could not be quantified. Personnel immediately isolated the affected cooling bank and evacuated the remaining gas to atmosphere. After inspecting 38 similar assemblies on the 'C' Plant cooler, two other fittings were found to be experiencing a minor leak past their threads. As a precaution, TransCanada elected to leave the three affected cooling banks out of service pending the results of a metallurgical analysis.
2000-019	On 08 May 2000, at approximately 08:50 Hours MST, operation staff experienced an unintended gas release at the Jenner Compressor Station. During a routine walk around of Unit Building #1, an audible gas leak was detected in the proximity of fuel gas system. The gas detection monitors in the building indicated the presence of natural gas but gas levels were well below alarm limit. The leak was identified as having originated from a broken NPS 1/2 Schedule 80 nipple. Personnel identified an ESD of Unit 1 to facilitate repairs. Unit 2 was brought on line while Unit 1 was taken out of service. The broken nipple was temporarily replaced and the unit was made available for normal gas service the same day. No damage to the unit or building resulted from this incident. Supply pressure at the location of the nipple is 3500 kPa. There was a negligible release of natural gas to the atmosphere as a result of this incident.
2000-020	On Monday 08 May 2000, at approximately 08:30 hours EDT, TransCanada experienced an unintended gas release at Station 62 "D". The leak was identified as having originated from a hairline crack along the socket weld that attaches a NPS 3/4 dry seal gas supply pressure tap to the discharge side of the RFA - 36 compressor. Personnel were in the process of a scheduled shutdown for an aero assembly change when the leak was noticed. There was no damage done to the unit or building as a result of this incident. Normal operating pressure at the supply tap is 6895 kPa. There was a negligible release of natural gas to the atmosphere as a result of this incident.



2000-021	<p>On 16 May 2000, a number of steam traps were discovered by an operator to have inadvertently not been removed or isolated allowing 1650 litres of diethylene glycol to escape from them onto the ground at the Pine River Gas Plant located near Chetwynd B.C..</p> <p>The leak originated from the jacketing of a sulphur transfer line. The line requires heated jacketing in order to keep the sulphur in a molten state. The normal heating medium used is glycol. The section of jacketing was previously switched to steam service in order to melt a particularly stubborn, frozen section of sulphur. The steam traps had been installed as appurtenances to the glycol tracing system at that time and were located on the low points on the section of jacketing to provide for condensate drainage.</p> <p>At 4 p.m. on 10 May this section of jacketing was put back into glycol service. The steam supply was disconnected and the glycol supply and return were opened but the steam traps installed had been forgotten about as they should have been either removed or isolated. Thus, when the glycol was reintroduced to the system it began to escape onto the ground through the steam traps. A problem was first detected on 12th May when an operator conducting his daily control board rounds noticed the glycol level dropping. At this point, personnel began to investigate the low level. At 8 a.m. on the 15th May, a low glycol surge tank level alarm was received. Upon receipt of the alarm the search for the source of the leak was continuing. It took from the 12th May to the 16th of May to locate the source of the glycol leak.</p> <p>With respect to environmental impact of the incident, Westcoast stated in its Detailed Incident Report that there was no negative impact anticipated to the environment or offsite habitat. The area directly below leaking traps contained no freestanding glycol; this area is directly below several runs of piping. Surface water from spring runoff had collected in an area down gradient of the sulphur storage tanks (the spill site), which is a bermed containment area for the sulphur storage site. This water was checked for evidence of glycol migration, and was found to contain no glycol. There was no opportunity to collect free liquid from the spill site. No further clean-up activity was undertaken, but monitoring is continuing. Any free liquid (surface water) from the bermed area, noted above, was pumped over to the sulphur runoff ponds for treatment as per Westcoast's Waste Management Act Permit PE-5615. As well Westcoast stated that down gradient site observations on the day of the spill indicated that no free liquid migrated beyond the immediate spill site. Perimeter site fencing is greater than 200 meters from the spill site, and there are interceptor berms between the spill site and the offsite area. Samples have been taken at a perimeter ground water monitoring well and three seepage sites, which will be tested for glycol.</p>
2000-023	<p>On 26 June 2000, at Mile Post 29. (Kilometre Post 46. ) of WEI's 30 inch Fort Saint John B.C. mainline, a person hiking could smell gas and they called WEI's area gas control center to report it. An investigative team was dispatched by WEI that discovered what was suspected to be a pin hole leak in the circumferential girth weld of WEI's 30 inch mainline that transports sweet natural gas. The line was shut down, sectionalized, and depressurized for 8 miles. The leak site is situated approximately 52 kilometers west of Chetwynd B.C. and 15 kilometers north of highway 97 that runs east/west between Chetwynd and Dawson Creek B.C.</p>
2000-024	<p>On 28 June 2000, at approximately 21:30 hours M.D.T., a fire occurred in TMPL's mechanical maintenance building located at its Burnaby B.C. terminal. The fire resulted in approximately \$125,000.00 damaged being caused to the building.</p>

s.16(2)

2000-025	<p>On October 19, 1999, the Trans Mountain system was in a scheduled shutdown for maintenance purposes. As part of the maintenance program, Trans Mountain was undertaking a number of mainline cutouts between km 7.3 and km 18.1 of its pipeline system. A nitrogen purge was used to drain this section of the line of oil. In preparation for the nitrogen purge, a connection was established between the existing block valves located at km 19 and km 21 of the system. As a result of mis-communication, the contractor initiated the introduction of nitrogen into this section of pipe while both valves remained closed. This resulted in the pressure in the section of pipe between the valves reaching 9750 kPa, exceeding the authorized maximum operation pressure (MAOP) of 8311 kPa. This over pressure situation was noticed some 3 to 5 minutes after the introduction of nitrogen was initiated. TMPL, in its Detailed Incident Report to the Board stated that immediately after the over pressure situation was relieved, it reviewed the work and safety procedures with the contractor prior to proceeding with the job and that communication processes would be reviewed to avoid similar situations from arising in the future.</p>
2000-026	<p>While loading a section of Line 100-6 through the bridle assembly around MLV 4-6, an NPT ½ nipple on the power gas line failed. The power gas line was immediately isolated and repairs conducted. The break occurred on the threaded portion of the nipple that fitted to the plug valve body and was a result of vibration induced fatigue at an improperly weighted threaded fitting. The remaining threads were removed and a thread by weldolet union was installed and welded over the remaining nipple assembly. A new valve, significantly lighter in weight, was installed.</p>
2000-027	<p>On 18 July 2000 at Shoofly 13C, Kp 28+800, Mr. [REDACTED] oiler with the backfill crew employed by Banister pipeline, was struck from behind by a truck driven by Mr. [REDACTED]. As a result of the accident, Mr. [REDACTED] sustained a fractured pelvis, broken tibia and fractures to his left hand. The injuries later resulted in the amputation of the leg due to complications.</p> <p>Mr. [REDACTED] had driven to the area to discuss pillow spacing with the Lower In Inspector. Once the conversation was complete, Mr. [REDACTED] checked his mirrors and preceded to drive in reverse 5 to 10 feet when he struck Mr. [REDACTED] pinning him under the vehicle. Mr. [REDACTED] had his back turned and did not see the vehicle approaching. Though there is some dispute as to whether Mr. [REDACTED] checked to see what was under his truck, then drove off Mr. [REDACTED] or drove off Mr. [REDACTED] then checked to see what he struck, the exact scenario is irrelevant to finding mitigative measures for this type of incident.</p> <p>Subsequent to the incident, Banister Pipeline held an emergency Joint Health and Safety Committee meeting on 21 July 2000. A foreman's meeting was held prior to start of work the day after the incident so that the incident could be discussed in the tailgate meetings. [REDACTED] was transferred from the Halifax Lateral project to another project. Banister intends to review the incident at all new worker orientations. Banister Pipelines will incorporate the circumstances and causes of the incident into their Pre-job Hazard Assessments prior to the start of any jobs.</p> <p>As a result of the incident, Maritimes and Northeast Pipeline prepared a Hazard Notification to be distributed to all employees. This notification outlined steps to be taken prior to backing a vehicle. M&amp;NP also approved a recommendation of installing back up alarms on all M&amp;NP vehicles. This policy will be reviewed at the beginning of new projects.</p>

s.19(1)



2000-029	<p>On 30 July 2000, an emergency shutdown occurred at Station 68 with a worker call-out occurring at 23:19 EST. Upon arrival at the station, workers discovered that the "A" plant normal vent and emergency vent valves were open and that the suction valve and unit discharge valve had failed to close. This resulted in 133 x 103 m3 of throughput natural gas being vented to atmosphere for a duration of approximately 11 minutes at a discharge pressure of 6890 kPa. Personnel manually isolated the valves and secured the unit. Investigation and temporary repairs were conducted the following day.</p> <p>Personnel discovered that a bared wire had shorted to ground causing the negative supply fuse to blow on the PLC Block No. 9. [REDACTED]</p> <p>[REDACTED] The system is supposed to be designed such that if the control block fails, the control logic will signal the unit valves to close and the unit vent valves to open in order to evacuate the unit piping. However, when the unit control logic was examined after this incident, it was found that the unit isolation failure logic had not included the unit vent valves.</p> <p>As a result of this incident, TransCanada modified the unit isolation failure logic for the "A" Plants at Stations 25 and 68 with a final completion date of 7 December 2000. In the event the unit vent valve and one of the unit valves remain open for more than two minutes, the Station PLC will isolate the Plant.</p> <p>TransCanada currently has only two gas powered "A" Plants in operation. The remainder have been retired or are powered via electricity.</p>
2000-030	<p>At approximately 02:50 hours PDT on 7 August 2000, there was a natural gas pipeline rupture on the Westcoast Energy Inc. ("WEI" or "Westcoast") 762 mm mainline, 46 kilometers north of Hope, B.C. Westcoast's Vancouver Gas Control remotely shut in both the 762 mm and 914 mm loop pipelines between Station 8A and 8B. WEI operations personnel manually shut-in the section of the 762 mm pipe surrounding the break. There was no ignition of the natural gas escaping from the pipeline.</p> <p>The occurrence site was located approximately 46 kilometers north of Hope, B.C., and approximately 69 kilometers south of Merritt, B.C. as measured along Highway No. 5 (Coquihalla Highway). At this site, the Coquihalla Highway is located about 100 metres west of the pipeline. The pipeline right of way runs parallel to and east of the Coquihalla Highway. The rupture occurred near the Zopkios rest area which is located to the west of the highway at Exit 217. At the time of the rupture there were several people sleeping in their vehicles across the highway at the Zopkios rest area. Some rock and soil debris from the rupture site landed on the highway and in the rest area. Although some of the debris damaged nearby vehicles at the rest stop, there were no injuries. The Coquihalla highway was temporarily closed for approximately three and a half hours and reopened at 8:30 hours PDT on 7 August 2001. Board staff was dispatched to the rupture site to conduct the incident investigation for the NEB. TSB investigators were also dispatched to the rupture site.</p> <p>The length of ruptured pipe was approximately 26.1 metres (85.7 feet); a total of approximately 46.3 metres of pipe (152 feet) was replaced. The rupture passed through two girth welds. The rupture traveled 18.9 metres (62 feet) upstream and 7.2 metres (23.7 feet) downstream from the suspected point of initiation. Fracture initiation occurred in the pipe body at the 4 o'clock position. The fracture arrested in the pipe body both upstream and downstream from the fracture initiation point. The rupture caused the exposure of approximately 27.4 metres (90 feet) of pipe and formed a crater approximately 27.4 metres (90 feet) long by 4.6 metres (15 feet) wide.</p>
2000-031	<p>On July 27, 2000, Westcoast began exposing the underground piping at their Nig Creek Booster Station Number 9 to check the coating and inspect the piping for corrosion. A backhoe was excavating approximately two metres from a 16 inch gate valve on a sending barrel when it struck a ½ inch nipple and valve threaded onto the top of the gate valve. The ½ inch nipple was forced out of the 16 inch gate valve and resulted in a gas release. The station was shut down and station gas flared. The station alarm was sounded and all main units, main generators and boilers shut down. Staffs followed muster procedure and were accounted for. The segment of line between block valves was isolated and blown down. Repairs were completed and the line returned to service.</p>

2000-032	A storage tank previously containing hot wax and crude oil, was shut down and in the process of being cleaned. Welders struck an arc to work on a sleeve guide when residue flammable hydrocarbons ignited.
2000-033	An oil fire occurred within the exhaust collector in Unit #2. Fire was put out by operators (using extinguishers). Fire under control at 22:00.
2000-034	<p>A gasket blew out at the first inlet insulating kit where the pipeline ends and enters into the gas plant. This allowed sweet gas to vent to atmosphere. It was determined that the insulating kit failure occurred due to differential settlement of the ground around the inlet piping which was built during the winter of 1999/2000.</p> <p>Two upstream wells were shut-in in an attempt to draw down the pipeline pressure or plant inlet pressure faster with the plant compressor. Staff then tried to tighten the flange which reduced the venting of sweet gas by 50%. Once the compressor reached its minimum suction pressure operators began to de-pressure the remainder of the 26 kilometre pipeline equally from the plant end and at the well end to prevent the formation of hydrates during the operation.</p>
2000-035	<p>On 4 September 2000 at approximately 04:00 EST, TCPL Gas Control requested personnel to respond to a "Plant Low Gas Alarm" at TCPL Compressor Station 116. The SCADA system also indicated that the 'C' Plant unit recycle valve was operating at 60% open and the unit was running at maximum exhaust gas temperature. The responding employee noted that he could hear a loud hissing sound, that the unit was recycling and that the roof fans were running. The building fans had been activated when the ceiling gas detectors registered a gas concentration of 20% LEL.</p> <p>As the employee was entering [REDACTED] the unit shutdown on "High Gas ESD". The employee confirmed that the majority of the gas detectors were measuring a gas concentration of 30%LEL and that one of the detectors had tripped on high alarm, therefore initiating the emergency shutdown. The 'C' Plant unit valves and required yard valves isolated the plant and the booster was safely vented to atmosphere without further incident.</p> <p>Prior to entering the building, the employee used a portable gas detector at the main door and measured a gas concentration of 2 to 5% LEL. After opening all entrances, the gas concentration level fell to 0% LEL. While inspecting the building interior, the employee discovered the supply tubing, feeding the purge/pressurising valve, had broken at the supply shutoff valve. The tubing had broken at the ferrule of a 90 degree Parker NPS 3/8 tube fitting. The affected fittings and tubing were replaced. The unit was offline for three hours, however there was no interruption of or reduction in service as a result of the outage. The employee conducted a final leak check, before leaving the site.</p>
2000-036	A fire occurred within a terminus building on the sulphur pipeline extending from Pine River Gas Plant down the mountain to the pelletizer plant. WEI indicated that the valve within this building is a split body type, which was leaking. As a result of work being done on the pipeline to restore the liquid state of the sulphur, the size of the leak increased. Parts were ordered to repair the leak and preparations were being made to drain the pipeline and take the valve out of service and then to replace the valve. Heat tracing used within the building is a 240 volt type system, which puts out high and localized heat. This heat tracing is what WEI suspect is what initiated the fire.
2000-037	WEI personnel discovered a leak of sour gas from a line-break control valve on the Grizzly Pipeline Gathering system. Inspection by WEI revealed that the leak was from the flange "O" ring on the control valve.



2000-038	On 04 October 2000 at approximately 11:55 hours, a person who works for Westcoast during the winter as a casual employee and is familiar with the site called the Fort Nelson office to report the smell of sour gas and noise from the line break valve at MP 96.25 of the Beaver River Pipeline. The witness was driving on an access road which is 100 meters from the line break valve. Two Westcoast employees were dispatched to the site. The two Westcoast employees put on airpicks and the Valve Service Technician closed the gas supply valve. The employees then investigated the site to determine why the exhaust valve had opened. They determined that the stainless steel 3/8" vent tubing allowed water to enter the hydraulic actuator and the water froze which caused the line break valve to open.
2000-039	On 18 October 2000 at 13:00 hours M.D.T. a 1/2 inch grease fitting was discovered to be leaking a trace amount of NGL on a pressure control valve (valve # 1-CSV-21) at the West Souris, Manitoba, Pump Station. The pipeline section, which the valve was installed on, was shut down and isolated at 13:09 M.S.T. until the source of the leak could be confirmed and repaired.
2000-040	On 12 October 2000 at mile post 1908 of Enbridge's pipeline right-of-way near Sarnia Ontario, a pipeline pigging contractor's employee (Mr. [REDACTED] employed with Hunter McDonnell) received an electrical shock and was knocked unconscious when the antenna of a pig tracking device contacted an overhead powerline. The pig tracking device consisted of a 20 foot long aluminum pole with a 5 foot long steel antenna attached to the end of it. The employee was raising it when the wind blew it toward an adjacent 4800 volt overhead powerline and made contact with it. The injured employee was taken by ambulance to the Welland County Hospital for over night observation and later released with muscle stiffness, sore shoulders and a small exit wound on his side as a result of the incident. The exit wound did not require first aid. He returned to work on 13 October 2000.
2000-041	On 8 October 2000, at approximately 7:30 CST, Gas control received an indication that the Line 100-2 Suction Blow-off Valve (L2-SB) had opened accidentally. Upon arrival at the site, personnel confirmed L2-SB was in the open position and the Line 100-2 Suction Valve and 1:2 Suction Cross-over valve had closed. Natural gas was released to the atmosphere as a result of this incident.
2000-042	On 20 October 2000 at 14:20 hours C.D.T. an oil fire occurred at TCPL's compressor station No. 43 Spruce, Manitoba. The fire occurred at the compressor driver unit No. C-C1 due to a small oil leak. A TCPL technician had overhauled the Davis vent valve on the unit driver (gas generator) with an approved manufacturers (Rolls Royce) repair kit as per a Rolls Royce service bulletin that had been received. The vent valve had to be removed to conduct the necessary service on it. Its removal involved breaking the pipe connections to the valve which, unknown to TCPL personnel, cannot be done without disturbing the external seals of the valve thus affecting the integrity of the external seals. The technician, upon completing the valve repair reinstalled it and started the unit and placed it back online. The technician checked the unit twice after doing so and verified everything was normal. Then the unit experienced an emergency shut down 91 minutes later after start up. The ESD was triggered by the fire eyes around the unit's driver. The ESD removed the fuel source which thus extinguished the flame. The fire detection logic operated as designed. There were no injuries.
2000-043	Backfire in engine resulted in flames being pulled into the manifold. Resulting explosion caused the blowout panel on the side of the compressor to release, thereby releasing flames into the unit building. Fire eye detection was triggered by the flames. Station shutdown, ie went into ESD.

2000-044	<p>At approximately 14:50 PST on November 2, 2000, during routine maintenance of the right of way, a small gas leak was discovered coming from the insulating flange five meters downstream of the 36-inch pigging barrel block valve at Compressor Station 4-B (Hixon). Help was immediately requested and the area was secured by 15:00 PST. The equipment necessary to handle the situation if the leak escalated was trucked to the site by Westcoast. A light plant was delivered and set up so that the leak could be monitored on a 24-hour basis by Westcoast personnel. Seal-ex of Edmonton was immediately called and their representatives were on site by 10:00 PST on November 3, 2000. A 2-piece clamp was manufactured and installed by November 5, 2000 and a sealant was injected into the clamp to seal off the leak. The repair was completed on November 6, 2000. The flange was monitored on a bi-weekly basis until the gasket was replaced on June 1, 2001.</p> <p>s.16(2)</p>
2000-045	<p>In June 1999, Westcoast ran a Magnetic Flux Leakage ("MFL") inline inspection tool in the 26-inch Alberta Mainline. As a follow-up to the findings of this MFL run, an excavation was performed at MP 10. to evaluate a possible anomaly. At approximately 17:00 MST on December 12, 2000, after the removal of the coating and sandblasting the external surface of the pipe, Westcoast's Fort St. John Pipeline crew discovered a leak on the body of the pipe. The leak was quite small and not audible.</p> <p>When the leak was detected the work was halted and a Westcoast person on site notified the on-call person in Fort St. John. The on-call person met with the Area Manager, Support Services Manager, Support Services Pipeline Team Leader, Technical Services Pipeline Integrity Specialist and Reliability Engineer. A telephone conference was held with the System Integrity Team Leader located in Vancouver. Based on information received from the personnel at the site, a decision was made to temporarily leave the Pipeline in service while arrangements were made to effect a permanent repair. That evening the Pipeline Integrity Specialist went to the site to further assess the anomaly. Radiographic inspection, magnetic particle inspection and ultrasonic inspection, using both straight beam and angle beam probes, were used to determine the extent of a suspected crack responsible for the leak. This inspection confirmed that the leak was associated with a circumferential crack-like indication that was 3.2 cm long on the outside diameter ("OD") of the pipe. A similar but shorter linear indication was detected 3.75 cm upstream of the leak. The shorter crack indication was also circumferential in orientation, and was approximately 2 cm in length. All exposed pipe was inspected for stress corrosion cracking. Only the two isolated circumferential crack-like indications were detected.</p> <p>On December 20, 2000 the section of pipe that contained the two anomalies was removed from service and the section of pipe containing the leak was removed and replaced with new pretested pipe. The line was placed back in service by approximately 21:30 MST. The pipe sample containing the defects was sent to Bacon Donaldson for analysis.</p>
2000-047	<p>TCPL employee entered CS #144 yard and noted a hissing sound emanating from the above ground yard piping. On further investigation, employee noted a leak of Natural Gas from a 3/8" discharge sensing line.</p> <p>The valve was shutdown to the sensing line, stopping the leak. Vibration was also noted at this time. Bridal valves 144-1 and 144-2 were found to be open. They were then closed, which stopped the vibration.</p>



2000-048	<p>A TQM employee was called to the East Hereford Compressor Station control building to do some electrical repairs on 28 December 2000. At 18:00 hrs EST an explosion occurred injuring the employee. The injured employee was taken to hospital where it was determined that he had suffered burns to 20% of his body. He is listed in stable condition.</p> <p>East Hereford C/S is an unmanned station. The explosion did not damage the pipeline nor did it affect throughput as the pipeline remains in operation. The control building, however, is severely damaged. Larry Gales of the TSB advised that the sound of the explosion could be heard 15 km away. The incident was on the RDI Local news and CTV news.</p> <p>The Fire Department was on site at time of reporting to NEB. A TSB representative (Mr Evan Marcott) was expected to arrive on the scene at midnight. His cell number is [REDACTED]. As this appears to be OSH related (HRDC), Brent Storey (a Labour Canada Investigator) and Paul Trudel (Pipeline Integrity investigation experience and is Francophone) are expected to arrive on site at noon on 29 December 2000.</p>
2000-050	<p>On 3 June 2000, on the #1 Sulphur converter on the Sulphur Processing Train at WEI's Pine River Gas Plant, sulphur impregnated insulation attached to a steel vessel was ignited by a spark from adjacent welding work contractor about 30 feet away. The welder did not notice fire as it was hard to detect during the daylight hours. The welder only became aware of the fire from the SO<sub>2</sub> smell. Personnel on duty responded to the situation and followed all necessary procedures to prevent injury. The Operator evacuated the contact workers and proceeded to spray water on the fire using a hose connected to the nearby fire hydrant #11. The fire was extinguished.</p> <p>DISCUSSION</p> <p>Once the fire was confirmed to be extinguished, the WEI operator plugged a small leak on the man-way flange on the top center man-way of the #1 A Sulphur converter, removed the insulation cladding and added more water to the cladding and insulation to ensure complete extinguishment of the fire. Welding operations continued, with approximately the first 15 minutes with WEI operator monitoring for the potential of a reoccurrence of a fire. WEI indicated that prevention of similar incidents requires a thorough understanding of the underlying cause of the initial leak and that installation of correct gaskets with correct bolt torques must be done to prevent further leaks.</p> <p>Incident discovered on WEI database during an unrelated incident investigation.</p>
2000-051	<p>On 25 April 2000, an error was made when a wood scaffold was installed too close to the hot external surface of the A/B Tail Gas Incinerator. This scaffold had been erected months before and was not in use. The high external surface temperature of the incinerator caused ignition of the wood on the scaffold. WEI operators noticed smoke and a small fire emanating from the scaffold and proceeded to throw the pieces of smouldering pieces of wood to the ground. Water was then used to douse the embers on the floor.</p> <p>DISCUSSION</p> <p>Investigation found that some of the planks on the scaffold were incorrectly installed in direct contact with a bare section of the steel shell of the Tail Gas incinerator. There was no interruption of service or damage to equipment. Charred wood debris was removed and disposed of into the garbage landfill.</p> <p>This incident was discovered during investigation into an unrelated incident.</p>

2000-052	<p>This incident was discovered during an investigation into an unrelated incident.</p> <p>On 27 January 2000 at approximately 08:00 hrs, WEI maintenance staff were welding pipe fittings on to recently installed replacement Sweep Air piping. Welding operations were preceded with spraying the area with water to prevent ignition of sulphur by sparks generated during the welding or grinding procedures. On returning from their lunch break at approximately 12:40 hrs, the welders noticed smoke rising from the top of the scaffolding. The scaffolding was located beside the south end of the east side of the Tail Gas Incinerator, which serves A and B sulfur process trains. The welders climbed the scaffolding and used water spray canisters to extinguish the smouldering fire. The source of the fire is believed to be welding sparks which contacted sulphur located under sections of wood scaffold deck material. Small gaps between the layers of plywood on the scaffold may have allowed the entry of a spark to the dry semi-exposed sulphur.</p> <p>The damaged wood and waste sulphur were removed and discarded to the landfill with general solid plant waste.</p> <p>No actions were taken by WEI to prevent similar incidents from occurring, as WEI indicated in the detailed report that they believed that this incident was not representative of a significant, typical or ongoing risk.</p>
2001-001	<p>Alliance Pipeline was advised at approximately 9:00 MST, on 07 January 2001, that a "foggy plume" was hanging over the Block Valve site 14B. The line was immediately shut down and isolated by Alliance Pipeline. The plume then disappeared. Plume was found to be as a result of a release of Rich Natural Gas. Investigation revealed a 3/4 inch gas line nipple, believed to have failed as a result of accumulation of snow and ice. Nipple was replaced and line was placed back in service at 16:40 MST. As this facility is located adjacent to the Cochine pipeline, Cochin was advised of the release by Alliance.</p>
2001-002	<p>On 10 January 2001, the Enbridge Pipelines Inc. (Enbridge) Control Centre operator, in Edmonton, received a 0 psi suction pressure reading at the East Souris - Line 4 Pump Station. However, the operator continued to receive a back up instrument reading. As a precautionary measure, the station was shut down at 18:33 MST and the on call person from Glenboro was contacted to investigate. The investigator identified the location of the leak upon arrival and Line 4 was shut down at 19:48 MST. The leak occurred on a 1/2" instrument line fitting for the pressure transmitter. The line was restarted at 20:12 MST after repairs were completed. Approximately 4.75 m3 of crude oil leaked on to the ground within the station yard. Clean up and restoration work commenced once the repairs were completed</p>
2001-003	<p>On 15 January 2001 at 05:02 hours A.S.T. the M&amp;NP system experienced a pressure increase on the downstream side of the Saint John 16 inch lateral Pressure Reducing Station (PRS) which is located in a semi urban setting on the outskirts of Saint John New Brunswick.</p> <p>The pressure increase resulted in a pressure relief valve (approximately 2 inches in size) lifting open at the PRS and releasing natural gas to atmosphere. Natural gas was released to atmosphere for approximately one hour and thirty three minutes before it was eventually stopped via onsite intervention by M&amp;NP personnel.</p> <p>The relief valve opened due to the failure of both the PRS's main and back-up Pressure Control Valves (PCV's) to continue to function. The PCV's are used to regulate the PRS's downstream pressure. This failure of the PCV's ability to function was due to hydrates choking or freezing off the fuel gas supply to the pressure regulators that in turn supply fuel/power gas to both PCV's. The back-up PCV would normally fail closed when situations warrant it doing so and as long as it has a fuel/power gas supply to it. However, it failed open when the fuel/power gas supply to it was lost due to freeze off from hydrate formation, allowing an unregulated gas pressure flow into the downstream side of the PRS where it vented to atmosphere through the pressure relief valve.</p> <p>This incident did not result in any property damage or personal injury.</p>
2001-004	<p>While putting rollback on the right of way, a dozer rolled over a log which caused the log to spin. The log hit [REDACTED] a worker for Parkland Oil Field (contractor), in the leg. He suffered a fractured right tibia.</p>



2001-005	<p>At approximately 00:45 MST, on 17 January 2001, operators at Enbridge's Edmonton control center noticed a significant drop in pressure on Line 4 between the Hardisty and Metiskow pump stations. Line 4 was immediately shut down between the two stations. At 01:00 MST, [REDACTED] (Enbridge General Manager - Western Region) was notified of the occurrences and Emergency Response procedures were implemented shortly after. At daybreak, an aerial patrol of the right of way (ROW) between the stations was started. The aerial patrol consisted of twelve passes of the ROW with no leak site being identified. Enbridge then sent an individual on a quad down the ROW from the Hardisty station. There was no leak site identified. Personnel then started to walk the ROW from the Hardisty Station. At 14:15 MST, personnel identified the leak site to be under a slough that was located approximately 500 ft downstream from the Hardisty Station. Enbridge personnel photographed the site as they discovered it. The Transportation Safety Board and the National Energy Board were notified of the occurrence on 17 January 2001 at approximately 14:50 MST. On the evening of 17 January 2001, pump trucks started to pump up the oil that was located in the slough under the ice from two different areas of the slough. The first area was from near the original crack location and the second location was a drilled hole. On 19 January 2001, in order to locate the exact location of the rupture, berms were constructed on each side of the ROW extending into the slough for approximately 150 feet. A third berm was then built between the two berms to close off an area of the slough. This area was then drained and excavated to determine whether the rupture location was within the bermed area. On 20 January 2001, Enbridge personnel confirmed the exact location of the rupture to be within the bermed area. 116 ft of pipe was removed from the excavation ditch on 23 January 2001. Replacement pipe was installed later that day. It is estimated that a total of 3800 m<sup>3</sup> (3,800,000 liters) of crude oil was released in the rupture. As of 1 May 2001, approximately 3760 m<sup>3</sup> of oil had been recovered.</p>
2001-006	<p>On 26 January 2001, at 14:00 MST, at a location roughly 100 metres upstream of Beg/Jedney Compressor Station, a 3rd Party Contractor back-hoe working on a crossing, struck and punctured the NPS 6 Pigging Loop/Pressuring line while installing a pipeline across WEI's line. Approximately 42,000 m<sup>3</sup> of sour natural gas was estimated to have been released by the time the line was isolated and shutdown. There are no residences near the site of the release, however, WEI's Beg/Jedney station is nearby and the WGSII Highway Gas Plant is adjacent to the compressor station. WEI believed that it was not necessary to evacuate the personnel within these facilities, so chose not to. WEI is however alert personnel within these facilities of the release. Line was isolated and will be repaired asap. There were no injuries, no obvious negative environmental impact, and no impact to deliveries.</p>
2001-007	<p>TCPL employees discovered a cracked ½" x 3" nipple on a pressure sensing line on M/L 492 which was releasing sweet natural gas. Line was isolated and vented. Nipple was replaced and line was replaced into service. No injuries, negligible impact on deliveries, and no obvious environmental impact. Line was isolated and vented. Nipple was replaced. Line was returned service.</p>
2001-008	<p>On 07 February 2002, at approximately 10:00 MST, Enbridge personnel discovered crude oil on the top side of the floating roof on tank 89 at the Cromer Terminal near Cromer, Manitoba. It is estimated that 15 m<sup>3</sup> of NSB crude oil was released as a result of this incident. All crude volume remained within the tank walls.</p>

2001-009	<p>On Sunday February 4, 2001, at approximately 15:16 hours, Eastern Daylight Time, a TransCanada employee responded to an emergency shutdown alarm at Compressor Station 147, near Cornwall, Ontario. Reference should be made to the detailed incident report which has an attached High Pressure Gas Operating Schematic A1-0147ST-00-D2-01. The ESD had caused the 'C' Plant Unit Suction (C-US) and Unit Discharge (C-DS) valves to close. The 'C' Plant Suction (C-SI) and Discharge (C-DI) Isolation valves were in the process of closing. The 'C' Plant Suction (C-SIB) and Discharge (C-DIB) Isolation Blow-off valves were open and venting natural gas to the atmosphere. The employee manually closed the C-SIB and C-DIB block valves. Had he not been present, C-SIB and C-DIB would have closed per their design logic, thus isolating the 'C' Plant yard piping and a marginally larger volume of natural gas would have been released to the atmosphere.</p>
2001-010	<p>On February 26, 2001, at approximately 10:00 CST, a TransCanada technician was performing routine maintenance on unit 'C1' at Compressor Station 49 when he noticed natural gas escaping from a broken NPS ½, schedule 80 pipe nipple outside of the compressor building on the discharge piping. Gas Control was immediately notified and the unit was shutdown remotely by Gas Control. Station personnel vented and locked out the unit to allow replacement of the broken nipple. The broken nipple was replaced with a NPS ½, schedule 160 nipple and the unit was returned to service on February 26, 2001.</p> <p>No injuries, unknown environmental impact, and negligible impact on deliveries.</p>
2001-011	<p>While unloading a garbage dumpster, a WEI employee pinched and severed her finger. Employee was transferred to the local hospital in Chetwynd, BC where the finger was amputated.</p> <p>This task involved using a forklift to unload a small dumpster into a larger dumpster. The employee was assisting with the task. Another worker (a maintenance person with forklift training) was operating the forklift. The assisting employee climbed up on the edge of the large dumpster to prod and loosen the garbage frozen in the small dumpster. The small dumpster was unstable and slid off the forks. The employee's finger was caught between metal surfaces.</p> <p>A complete WEI EH&amp;S investigation was done following the Incident.</p>
2001-012	<p>During routine work/operations on 1 March 2001 at approximately 14:00 PST, Westcoast Energy Inc. (WEI) employees noted a small natural gas leak on a cracked nipple on a valve at Mile Post 0.0 of the 10 inch SE Helmut Pipeline, approximately 196 km NE of Fort Nelson, BC. Upon discovery of the leak the acting Team Leader was contacted and service personnel were dispatched to the valve and pigging barrel site. The personnel that discovered the leak remained at the site to monitor the leak. The source of the leak was determined to be from a cracked swage pipe nipple on the bottom of the 10" WKM Gate Valve.</p> <p>The 10" SE Helmet Extension Pipeline had to be depressurized in order to remove the damaged parts. The producer was advised of the problem and was told to shut in their wells to allow Westcoast service personnel to de-pressurize the 10" SE Helmet Extension Pipeline and remove the cracked swage nipple. The producer shut in their wells at 19:30 PST and the pipeline was de-pressurized. The cracked swage nipple was removed and replaced with a pipe plug. The pipe plug is a permanent change on this valve as there is another body cavity bleed that can be used (situated at the middle of the valve). The pipeline was re-pressurized and the producer was contacted and informed that they could start flowing gas again (23:00 PST).</p>



2001-013	<p>On 8 March 2001, at approximately 08:10 hours MST, TransCanada received a phone call from a Landowner claiming to have heard a leak while driving by MLV 19, near Indian Head, Saskatchewan. TransCanada immediately dispatched a pipeline technician to investigate the occurrence. The responding employee confirmed the source of the leak to be the NPS 1/16 vent on the pilot relief valve of one of the regulators on the gas hydraulic operator for the 4:5 upstream tie-over valve. A negligible volume of natural gas was venting from the NPS 1/16 opening. The technician proceeded to cycle the power gas supply valve open and closed. This action temporarily stopped the leak. The 4:5 upstream tie-over valve was left in its normally closed position and the power gas supply to the operator was isolated.</p>
2001-014	<p>On the morning of 10 March 2001 hydrocarbon liquid entered the Nig Creek Booster Station due to the pigging operation of the 10-inch Umbach pipeline. Because the station was drawing fuel from the Alternate Fuel Supply, the liquid slug ahead of the pipeline pig had an open path to flow past the station into the 16-inch Nig Creek Pipeline and also to enter through the station's suction piping. Since compression was not operating, the liquid slug had an open path to flow to the station discharge piping through the 4-inch check valve. The liquid slug was sufficiently large to be carried through the Alternate Fuel Supply past the #2 station heating boiler's combustion chamber and collect in the debris tray beneath the combustion chamber. The volume of this tray determines a hydrocarbon condensate release volume of approximately 0.025 m<sup>3</sup>. It is estimated that a further 2 to 3 cm<sup>3</sup> of condensate overflowed the tray onto the Auxiliary building floor and ignited from the boiler. The station fire detection system alarmed at 08:43 followed by return to normal state at 08:45. Westcoast's Charlie Lake Gas Control Center operator immediately contacted the station operator who was on route to Nig Creek to receive the Umbach pig. A station intrusion alarm by-pass event indicates that the station operator was on site at Nig Creek at 08:52. The station fire detection system alarmed again at 09:25 followed by a return to normal state at 09:27 and operator acknowledgment that the fire was extinguished.</p> <p>The events suggest either a small fire just within the detection limits of the fire detection system, and the fire burned for a period of less than 45 minutes, or that the fire self-extinguished and re-ignited during a 45 minute period. The station operator extinguished the fire with what was described as a single short puff from the Auxiliary Building portable dry chemical fire extinguisher. There was no heat damage to any of the facilities. Minor clean up followed consisting of disposal of split condensate and cleaning of soot from the front of the boiler.</p>
2001-015	<p>A small sulphur fire occurred while personnel were taking the sulphur pipeline down for maintenance. While draining less than a gallon of sulphur from the line the sulphur ignited.</p> <p>Personnel extinguished the fire within 15 minutes by using water and a dry chemical fire extinguisher.</p>
2001-016	<p>On 6 March 2001, station personnel conducted a routine leak check after starting the 'C' Plant at Compressor Station 88, near Hearst, Ontario. At approximately 15:14 hours MST, personnel detected a small natural gas leak on the fuel gas mini skid for the RB211 DLE. Personnel immediately shut down the unit and isolated the fuel gas supply. Further investigation revealed that the gas was leaking through a gasket on the APCO Fuel Gas Regulator. The unit was shut down for a period of two hours, while personnel dismantled the pressure regulator to effect repairs. Upon dismantling the regulator, personnel could not find any visible signs of damage to the diaphragm. Following re-assembly, the regulator was tested for leaks and was returned to normal gas service without further incident.</p>

2001-017	<p>On April 5, 2001, at approximately 12:15 hours MST, a TransCanada employee detected a high concentration of natural gas near the north exterior of the Unit 1 building at the Jenner Compressor Station on the Foothills Pipe Lines (Alta.) System. Upon further investigation, it was determined that the natural gas was leaking from the seal around the lid of the Unit 1 bypass check valve. Site personnel shut down Unit 1 and then completed a controlled yard blowdown in order to facilitate immediate repairs to the valve. The two o-rings in the lid of the bypass check valve were replaced on April 7, 2001.</p>
2001-018	<p>On 16 April 2001, at approximately 11:45 hours Central Standard Time (CST), TransCanada staff were notified about a possible oil/gas leak at MLV 30 + 4.███ Km. Operational staff from Station 30 were dispatched to investigate the leak and upon confirmation that the leak was associated with the mainline Drip on line 100-4, they proceeded to isolate the 100-4 line from MLV 30 to MLV 31. Cleanup crews were contacted and sent to the site to contain and cleanup an unconfirmed quantity of oily substance that had entered the drainage ditch adjacent to the valve location. There was some flow in the drainage ditch at the time of the incident due to spring thaw and runoff. The cumulative release of natural gas to the atmosphere as a result of this incident was negligible.</p> <p>Additional investigation into this incident determined that the source of the leak was a cracked NPS 1 riser which is part of the mainline Drip horizontal blow-down assembly. An additional contributing factor to the leak was a failed NPS 2 isolation valve on the mainline drip. A new isolation valve and vertical blow-down riser assembly were installed on May 4, 2001.</p> <p>TransCanada has estimated that approximately 100 gallons of drip oil was spilled into the adjacent drainage ditch as a result of this incident. A remedial cleanup plan, approved by Manitoba Environment, was implemented with the assistance of an environmental cleanup crew from Winnipeg. An impact assessment of the spill was completed with the assistance of Wardrop Engineering. This assessment concluded that there will be no residual effects as a result of the spill.</p>
2001-018	<p>On 16 April 2001, at approximately 11:45 hours Central Standard Time (CST), TransCanada staff were notified about a possible oil/gas leak at MLV 30 + 4.███ Km. Operational staff from Station 30 were dispatched to investigate the leak and upon confirmation that the leak was associated with the mainline Drip on line 100-4, they proceeded to isolate the 100-4 line from MLV 30 to MLV 31. Cleanup crews were contacted and sent to the site to contain and cleanup an unconfirmed quantity of oily substance that had entered the drainage ditch adjacent to the valve location. There was some flow in the drainage ditch at the time of the incident due to spring thaw and runoff. The cumulative release of natural gas to the atmosphere as a result of this incident was negligible.</p> <p>Additional investigation into this incident determined that the source of the leak was a cracked NPS 1 riser which is part of the mainline Drip horizontal blow-down assembly. An additional contributing factor to the leak was a failed NPS 2 isolation valve on the mainline drip. A new isolation valve and vertical blow-down riser assembly were installed on May 4, 2001.</p> <p>TransCanada has estimated that approximately 100 gallons of drip oil was spilled into the adjacent drainage ditch as a result of this incident. A remedial cleanup plan, approved by Manitoba Environment, was implemented with the assistance of an environmental cleanup crew from Winnipeg. An impact assessment of the spill was completed with the assistance of Wardrop Engineering. This assessment concluded that there will be no residual effects as a result of the spill.</p>
2001-019	<p>During pipeline pigging operations near Station 3 McLeod Lake Compressor station, a pig slowed down or stopped momentarily when it passed a Tee (intersection) within the station. This caused a pressure build up behind the pig and caused a pressure relief valve in the station to lift for about 3 seconds. The result was an unintended 3 second release of natural gas to the atmosphere through the relief valve.</p>



2001-020	<p>At 16:37 hours local time on 30 April 2001, at Westcoast Energy Inc's (WEI) Taylor B.C. McMahon Gas Plant, a leak developed along the inside edge of a cement closed drain valve pit. An estimated volume of 16m<sup>3</sup> of salt/sour water was released. There was no C3 or C4 present since the liquids are at atmospheric pressure. An exploratory excavation was undertaken along side the pit to determine how best to repair the closed drain system. The south side of the cement pit was excavated and cribbing was installed, but due to wet weather the work could not be completed. The excavation filled with water, which had to be drained and removed to the plant's effluent area for treatment. The wet soil in the excavation was also removed and taken to a steel tank (Tank 103) for testing, removal and treating by Hazco Environmental (hazardous waste treatment co.). Personnel discovered that a section of the pit's drain line had externally corroded and was leaking. As a repair, a 5 foot length of 4 inch diameter pipe was fabricated with a flange and installed in place of the corroded section of pipe. The cribbing was removed and clean soil used to fill the excavation. The line was tested and placed back into service on 1 May 2001.</p>
2001-021	<p>On 30 April 2001, at 2126 hrs MST the Edmonton Control Centre started a Line 6B delivery of a condensate batch to the Sun Oil refinery. The Sarnia Control Centre operator contacted Sun Oil and verified that their delivery valves were open. At 2145 hrs MST, the Edmonton operator contacted the Sarnia operator concerned about mainline pressure. Line 6B was immediately shut down and a gauger dispatched to the Sun Oil Take Off. At 2200 hrs MST, the gauger reported no identifiable problems at the Sun Oil Take Off and proceeded to the Sun Oil Metering System. At 2205 hrs MST, the gauger contacted the Sarnia operator and advised of a leak at the Sun Oil Metering Facility. The Sarnia operator immediately isolated the metering facility.</p> <p>The emergency response notification was initiated at 2210 hrs MST with the first responder on site by 2315 hrs MST. The gauger remained on site after the initial notification. The metering facility was depressurized into the sump tank at 2315 hrs MST and the release of oil halted. Site clean-up commenced immediately. It is estimated that 2.8m<sup>3</sup> of crude oil was spilled, all of which was contained inside a berm on company property.</p>
2001-022	<p>On 28 and 30 April 2001 at Westcoast Energy Inc's (WEI) Pine River Gas Plant in B.C. there were a total of two releases of H<sub>2</sub>S into the atmosphere (one release on each of the two days). The 28 April release occurred when a control instrument which monitors the level of water at the steam side of the # 1 sulphur condenser (B sulphur train) failed and mistakenly detected a low water level condition. The DCS based control system is configured to automatically initiate an emergency shut down (ESD) when a low water level is detected. The ESD caused the Reaction Furnace's Combustion Air Blower to shut down, the Acid Gas ESD Valve to begin to close and the air ESD valve to begin to close. As the Combustion Air Blower speed decreased the flow rate of air decreased until the blower and flow of air completely stopped thereby allowing a back-pressure to flow up against a check valve which malfunctioned due to scoring on the shaft and bushings. The malfunctioning check valve allowed unburnt H<sub>2</sub>S laden acid gas to pass back through it and through a Surge Flow Control Valve to atmosphere outside of the A/B Utilities Building.</p> <p>Under normal operating conditions the combustion furnace or reaction furnace serves to combust some of the H<sub>2</sub>S laden Acid Gas to SO<sub>2</sub>. The Reaction furnace was operating normally prior to the incident. However, early in the incident the combustion flame would have been extinguished and the combustion air depleted. With the flame extinguished, the H<sub>2</sub>S laden Acid Gas that was vented to atmosphere had not been burned off to convert it to SO<sub>2</sub>.</p> <p>Following the 28 April incident, personnel repaired the failed low level transmitter. As well, they recognized that the check valve was in need of servicing. However, parts would have to be ordered which personnel did. They decided that with the having repaired the level transmitter the likely hood of the incident repeating itself before the check valve's ordered parts arrived would be highly unlikely.</p> <p>As it turned out, unbeknown to maintenance personnel, an additional wiring problem (corroded transmitter wiring) existed with the water level control instrument. As a result the incident repeated itself on the 30 April as the check valve had not been repaired due to WEI staff having ordered parts which they were still waiting for.</p>

2001-023	<p>The station generator shut down on Ignition Failure at 16:30 PDT. This resulted in a loss of power to the station. The loss of AC power, caused the Unit #1 Compressor Oil cooling fan to stop. This caused the compressor unit #1 to shut down on high oil temperature (16:45 PDT), which in turn resulted in the automatically de-pressuring or venting of the compressor casing. Total volume vented to atmosphere estimated at 4.6695 MSCF of Sweet Natural Gas.</p>
2001-025	<p>Approximately 40 m<sup>3</sup> (40, 000 litres) of diluted sulphuric acid solution of a pH 3.6 was estimated to have seeped through a partially open discharge valve for the past 2 weeks from a collection pond into crushed sandstone located next to the ponds. Some of the product may have migrated into the surrounding vegetation surrounding the ponds and sandstone.</p> <p>This spill consisted of normal plant runoff water caused by rain or snow melt from the site. This runoff collects in a treatment pond, is treated for ph, then is transferred to a 2nd pond. The ph is tested, and if acceptable, it is drained to the surrounding area. The leakage came from this 2nd pond. The intentional release of this water is usually done in the spring following the snow melt. This year, prior to this being done, the drain valve from the pond accidentally passed water to the surrounding area. It appears that the valve may not have been entirely shut, or had become partially opened due to the formation of ice within the pipe. When the line thawed in the spring, the leakage occurred.</p> <p>Reportedly, the last personnel to work in the area was a contract crew under the direction of the WEI Engineering Department. The WEI EH&amp;S investigation determined that, upon completion of the contractors work, the Engineering Department should have ensured that the job was properly completed, as per the Work Order hand-back procedures. Specifically, the valve should have been checked to ensure that it was shut.</p> <p>The ph of the leaked water was tested and found to be within the limits specified acceptable for release. The result of the leak was no different than would have occurred had the water been intentionally released.</p> <p>The release was unintentional, and had the ph been extreme, environmental damage could have occurred, therefore prevention of a reoccurrence is required.</p>
2001-026	<p>As a result of a failed gasket on a downstream flange on the outlet valve of the Boundary Lake pipeline inlet slug-catcher, a sweet gas leak developed. The pressure at the time was approximately 850 psi. The noise from the leak alerted the WEI personnel located nearby. Westerly winds quickly dissipated the gas which leaked.</p>



2001-027	<p>On 10 May 2001, the station outage and turnaround at Booster Station #8 (Laprise) was nearing completion. During this particular outage, station relief valve maintenance was performed as well as a 2500 hour inspection and partial overhaul of Unit #5 (Ingersol - Rand 412 KVS-FT engine and compressor). By late afternoon on 10 May 2001, the maintenance work on Unit #5 was complete and the unit was ready for a test run. Operations and maintenance staff Messrs. [REDACTED] and [REDACTED] proceeded to go through the unit starting sequence. While the unit was running, a chirping sound was heard coming from the vicinity of #11 power cylinder. The head of the cylinder had been changed out during the maintenance work performed on the unit earlier that week. Both employees assumed that a leaking exhaust manifold gasket was the cause of the noise. Both employees climbed onto the catwalk to investigate the noise. While bent over in front of power cylinder #11 to investigate the source of the noise, they noticed that a Kiene Indicator Valve had been left open. At this time a flash of fire occurred in front of both employees, resulting in both employees being burned. The unit safety systems were activated by the fire detection system and the unit was automatically shutdown at 17:23 PDT.</p> <p>Messrs. [REDACTED] and [REDACTED] evacuated the compressor building with Mr. [REDACTED] stopping to close the unit manual fuel shut off valve. Both employees went to the first aid room and were met by Mr. [REDACTED] Electrical and Instrumentation Technician for Westcoast. Mr. [REDACTED] had received the most serious burns and, after he removed his coveralls and shirt, was showered with cold water. Mr. [REDACTED] proceeded to the Prime West Facility adjacent to the Laprise Station to enlist the aid of the First Aid attendant. The First Aid attendant treated both employees.</p> <p>The Fort St. John Gathering Operations/Maintenance Team Leader was notified of the incident at approximately 19:20 by Mr. [REDACTED]. After discussion with Messrs. [REDACTED] and [REDACTED] it was decided that Messrs. [REDACTED] and [REDACTED] should drive to Fort St. John and report to the Fort St. John Hospital for additional treatment. They arrived at the hospital at about 22:00, were treated for their injuries and released.</p> <p>At approximately 19:30 two other Operations and Maintenance employees were dispatched to the Laprise Station to confirm the safe condition of Unit #5 before another start attempt was made. When they arrived at the station, they found the Kiene Indicator Valve open on the #11 power cylinder. They closed the valve and the unit was restarted. With the unit running, a more thorough check of the unit was made. This check revealed a fuel gas leak from a Dressler coupling on the fuel gas manifold near #11 power cylinder. The unit was again shut down and the leak was repaired. It was also noticed that the #10 power cylinder spark plug wire was disconnected from the spark plug. This may have caused an arc from the #10 power cylinder coil tower to the coil ground. This was repaired by attaching the spark plug lead to the spark plug. The unit was again started, test run and left on line.</p>
2001-028	<p>On 21 May 2001, at approximately 09:00 MST, the TransCanada emergency number was called by a local area farmer, to report an audible gas release at Kilometre Post 135, approximately 25 kilometers northwest of Shaunavon, Saskatchewan. TransCanada personnel were dispatched to investigate the leak and upon confirmation that the leak was associated with the NPS 42 pig launcher, they proceeded to isolate the vessel from the mainline. The leak was identified as having originated from the pig launcher access door, caused by a leaking o-ring. The o-ring was replaced on 24 May 2001.</p> <p>Supply pressure at the location of the leak was 7800 kPa. Foothills stated that the amount of natural gas released to the atmosphere was negligible.</p>

2001-029	<p>On 18 May 2001, at approximately 8:50 MST, Westcoast personnel discovered a sour natural gas leak on the 10 inch Milligan Peejay Loop Pipeline while planning for work at a nearby tie-in site. The leak site was located at kilometer 3. of the Milligan Peejay Pipeline near Fort St. John, British Columbia. Once the leak site was identified, producer tie-in valves were immediately closed along the pipeline to isolate the pipeline from all gas sources. After the pipeline was isolated, the pipeline was depressurized by flaring the remaining gas. Depressurizing the pipeline enabled further inspection to occur.</p> <p>The leak occurred on line pipe approximately 0.5 metres upstream of the tee and producer tie-in assembly. Since the producer tie-in is no longer active, Westcoast removed the affected piping plus the producer tie-in assembly and replaced it with approximately five metres of new pretested pipe. The two new tie-in welds were inspected by x-ray. Westcoast completed the repairs and put the pipeline back in service on 28 May 2001.</p>
2001-030	<p>On 21 May 2001, 4:18 MDT, a BC Hydro power failure occurred. The emergency generator did not start due to a faulty battery (battery case cracked). The power failure caused the unit 3 compressor case to vent approximately 15,144 SCF of natural gas to the atmosphere. (Note: venting of this gas is considered by WEI to be a normal part of the control logic for a prolonged power failure)</p> <p>Cost of failure = \$1,000.</p>
2001-031	<p>On 25 May 2001, 23:00 PDT, approximately 5.8 million SCF of natural gas was released to the atmosphere through a relief valve as a result of a failure of a pressure regulator (on the line).</p>
2001-032	<p>On 25 May at Westcoast Energy Inc's (WEI) Fort Nelson Gas Plant in B.C. there was a release of SO<sub>2</sub> into the atmosphere.</p> <p>The release was detected when the sulphur plant operator smelled SO<sub>2</sub> at ground level by the combustion air blower intakes (reading of 8 ppm obtained). The leak was found to be coming from the Train 10 sulphur acid gas enrichment line (762 mm) close to where it joins the acid gas header. Near the location of the leak the SO<sub>2</sub> ppm reading was determined to be 495 ppm. The area was cordoned off and staff determined the leak to not present a safety risk to either the plant or its personnel. A temporary repair was made the next day until such time as a permanent repair was possible. Permanent repairs were made 22 and 23 June 2001.</p>
2001-033	<p>The Unit #1 at Compressor Station 2B (Azouzetta) shut down due to a perceived high bearing temperature on the compressor thrust bearing. Each time the unit was re-started, gas was vented. The normal sequence is to vent the compressor case to 250 psi. A total of approximately 10.5 Mscf of gas was vented to the atmosphere. Through investigation, it was determined that the shutdown was due to a wiring problem on the thrust bearing temperature sensor and not an actual high bearing temperature. After the last shutdown on May 15, 2001, the bearing temperature shutdown was temporarily bypassed until a permanent repair was made later in the day and the unit was re-started. New wiring was installed within a stainless steel tube to prevent reoccurrence.</p>
2001-034	<p>At approximately 16:00 on 02 June 2001, approximately 50 litres of caustic solution (estimated to be 15% strength) leaked from the caustic cooler located in the condensate and fractionation building. This solution leaked into the catch basin, but then overflowed into the Peace River. The exact volume that made it into the river was difficult to quantify because of the muddiness of the river. The piping was isolated at 16:30 on 02 June 2001. A followup phone to WEI call by TSB on 04 June 2001 indicated that the recent pH readings measured at the cooler were very high (as expected). At both the skimming bay and the Peace River, the pH readings were acceptably normal.</p>



2001-036	<p>Tank 306 holds caustic solution. During servicing, the level transmitter was removed from Tank 306, the transmitter isolation valve was left open. Approximately 1,000 litres of caustic solution spilled into the bermed secondary containment surrounding the tank. When level in the containment area started to drop, investigation revealed that approximately 30 litres of the solution leaked past or through the berm and into the surrounding soil (but still on plant site property).</p>
2001-037	<p>At approximately 08:18 hours P.D.T. on 3 June 2001 the station operator at Westcoast Energy Inc.'s Summit Lake B.C. compressor station No. 4A heard gas escaping outside in the station yard while he was in the station's Control Room. He went outside and the noise of escaping gas was loud enough to lead him to believe that a small line had perhaps broken off near a relief valve. As he approached the area of the station discharge piping for Compressor Unit No. 2, which is adjacent to relief valve PSV-0402 that is installed above a block valve, the gasket located in the flange above the block valve and below the relief valve blew out. The escaping gas pressure damaged the wall of the recycle shed located beside the valve. The escaping gas also blew gravel from the ground around the site. The operator had observed the relief valve to be bouncing up and down in place above the block valve while the gas was escaping from the flange.</p> <p>The operator responded to the situation by activating a station ESD. The station isolation valves closed but the station blow down valve PSV-0415 failed to open. The majority of the station piping did manage to blow down through the flange with the blown gasket. However, because of the faulty station blow down valve failing to function, this left the station discharge piping on the discharge side of #3 check valve pressurized. Immediately after the incident the following was noted with respect to the flange stud bolts and nuts:</p> <ol style="list-style-type: none"> <li>1) One of the 12 stud bolts that exist on the flange had broken;</li> <li>2) Two of the 12 stud bolts that exist on the flange were cracked; and</li> <li>3) Two nuts had come off two of the stud bolts and were found on the ground beneath the flange.</li> </ol> <p>The repair carried out by personnel following the incident included replacing the flange gasket &amp; flange studs. Personnel also found an electrical problem that resulted in the station relief valve not opening when the station was ESD'd. This problem was also corrected.</p>
2001-038	<p>At approximately 23:00 PDT, a valve on a sulphur pit was left open which allowed between 50 and 100 tons of sulphur to release into the adjacent ditch and wooded area. At the end of the Train #3 turnaround, in preparation for startup, a block valve (isolating Train #3 sulphur outlet from the tie in to Trains A and B outlet) was opened. This crossover line had been isolated and had cooled off during turnaround, solidifying its contents of sulphur (S2). During startup the S2 re-warmed and eventually liquified. Approximately 24 hours later, S2 was found to be issuing from a pipe which was missing a pipe cap. It was estimated that S2 flowed through a 1" valve for about 2 hours.</p> <p>14 June 2001 update: See Action Details Tab - E-mail</p>
2001-039	<p>On June 9th, 2001 at approximately 11:29 MST, at TransCanada PipeLines Limited, Station 17 (Regina Compressor Station) a fuel gas regulator for the "D" plant compressor on the primary fuel gas run, failed and resulted in the venting of an unknown amount of sweet natural gas to the atmosphere.</p>

2001-040	At 13:00 hours P.S.T. on 17 June 2001, at Westcoast Energy Inc's (WEI) Compressor Station No. N2 Prophet Creek B.C., a Westcoast employee (██████████ Station Operator) received 1st degree burns on his face and right hand when a flash fire occurred at the gas fired boiler's pilot light while he was attempting to light it. The Operator's burns were assessed and treated by a doctor the Fort Nelson B.C. Hospital. He returned to work the next day with the extent of his injury having been determined to be similar to a severe sun burn. The incident was reported by ██████████ of WEI. Phone (██████████)
2001-045	During a turnaround at the Pine River Gas plant, at approximately 1:00 pm on May 26th, after the manways were removed from the B High Pressure Contractor, a small smouldering fire at the raschig rings was visually detected by the indication of smoke. Water had been previously sprayed into the top of the vessel to soak the vessel internals and flood the raschig rings in accordance with established turnaround procedure. No workers were inside the B contractor at the time of the fire. Water has previously been drained and some drying had take place which allowed the pyrophoric material to ignite when it was exposed to the atmosphere. The smouldering fire was extinguished immediately with water.
2001-046	During a turnaround at the Pine River Gas Plant, on May 27 th at approximately 16:30 PST, the raschig rings began to smoulder when the manways were removed from A High Pressure Contractor. Water was stationed onsite as the possibility of a fire was anticipated. Water had previously been sprayed into the top of the vessel to soak vessel internals and flood the raschig rings in accordance with established turnaround procedure. No workers were inside the A Contractor at the time of the fire. The water had been previously drained in accordance with procedure and some natural drying had take place which allowed the pyrophoric material to ignite when it was exposed to the atmosphere. When the pyrophoric iron began to burn, smoke was detected by the safety watch and water was used to douce the rings. As a matter of practice, a water source is located at each vessel to douse the rings if necessary, as part of standard fire fighting procedures.
2001-047	During a turnaround at the Pine River Gas Plant, on May 31 at approximately 11:10 PDT, contractors were removing catalyst from Train 3, #2 and #3 converters using a vacuum technique. Several fires developed and were extinguished by dousing with water. In anticipation of the possibility of this occurrence, personnel used personal protective equipment (PPE) while performing the task as per procedure. Fire water was made readily available. After the unit was shut down and inspected a complete analysis of the cause of the fire was done. It was confirmed that the heat soak and sweep-out procedures were performed correctly and that a greater than usual amount of sulphur remained in the vessels because of a deficiency in the structure of the catalyst bed. Specifically, an internal screen failed due to improper installation of the support grating. The screen ruptured and allowed beads of support bed material and catalyst to leak to the bottom of the vessel where it could not be removed by the heat soak.
2001-048	Between approximately 13:00 and 13:30 MST on May 29, 2001 an Operator was draining the glycol storage tank to the open drain system in preparation for internal inspection of the tank. Once drained, the drain valve was inadvertently left open and the surge tank blanket gas (methane) passed into the building. The gas was detected by a gas detector above the drain point, and an alarm rang in the Control Room. Within a few minutes Operations shut the valve. The building was then cleared of gas. The blanket gas system had been shut down and vented prior to the draining procedure. What vented was residual gas which was at minimal pressure. WEI has calculated the release to have been 5890 scf.



2001-049	On June 17th, at WEI's McMahon's Gas Plant near Taylor BC, the sulphur plant was been brought down in a controlled manner due to a Cogeneration Plant trip, and consequent lack of process steam availability. During the shutdown sequence, operators discovered and subsequently bypassed a passing fuel gas block valve. In an attempt to re-ignite the incinerator, the #1 incinerator lit in an aggressive manner. The concussion of the ignition was felt throughout the facility, however there was no evidence of damage as a result of this ignition. No injuries however, the incinerator was shutdown to facilitate an investigation .
2001-050	On 4 July 2001 at 12:50 MST a "puff" of NGL was released from the Line 1 pump room at Glenavon Pump Station at MP 504. Unit 1.1 at Glenavon was locked out on a seal failure with NGL isolated in the pump. The NGL expanded due to the rise in atmospheric temperature, which resulted in a slight release of NGLs from the outboard seal. This, in turn, tripped the Unit 1.1 gas detector. Enbridge stated that Unit 1.1. pump was immediately drained down to prevent further pressure buildup. Enbridge replaced the seal on 5 July 2001.
2001-051	On 5 July 2001, approximately 500 m3 of H2S gas was inadvertently vented to atmosphere after the increased concentration of H2S initiated shutdown at the Paddle River Complex and Meter Station. Alliance personnel did not report the incident until 11 July 2001. This incident is considered to be non-reportable under OPR99.
2001-052	A contract worker suffered a broken leg as a result of an incident that occurred at the Enbridge Cactus Lake Pumping Station on July 20, 2001. The contractor was lifting a valve when the cable "detached" and the valve dropped down on the contractors leg. The worker was taken by ambulance to the Macklin Hospital.
2001-053	On 26 July 2001, at approximately 16:40 PDT, lightning struck the distance piece vent pipe on the outside of the Compressor Station 1 compressor building. Station employees felt the lightning shock and immediately went to investigate if there was any damage to the building or equipment. Upon investigation, Westcoast personnel discovered that the vent gas from the unit #2 vent stack had ignited. A Westcoast employee entered the compressor building and closed the supply valve to the vent. The fire went out, the valve was opened and the unit was back in service. The total time that the vent gas was ignited is estimated at two to five minutes.
2001-054	<p>On 25 July 2001 a small fire occurred at Alliance's Carson Creek Compressor Station. The station was shut down at the time to facilitate modifications to the compressor cooling package. Flint Energy Services was on contract to modify a skid to accommodate the installation of an electric motor to run the cooling fan. This required Flint to cut and bolt some new brackets on to the existing building skid frame.</p> <p>Flint representatives (a welder, his helper and Flint's safety person) went through the site orientation and a hot work permit was completed for the operation. The scope of the work was discussed, and appropriate systems were locked and tagged out. During their review of the work site, neither Flint or on-site Alliance personnel noticed two lengths of NPS 3/8 stainless steel tubing which was hidden from view behind an I-beam. The tubing was situated on the opposite side of the I-beam up from where the welder was positioned. The tubing ran along the I-beam's side but underneath its upper ledge. Both tubings had previously been capped and were inactive. However, one of the tubings still contained some residual gas. The other tubing was a deactivated air line.</p> <p>The welder and his helper were going to cut an inspection hole in the side of the I-beam and they had both looked on the other side of the beam but did not remove some grating that would have enabled them to get right in and have a good look where they would have been able to see the tubing. The tubing was at the very top side of the I-beam and was not visible without taking out the grating.</p> <p>As the welder cut through the metal I-beam with a cutting torch, the tubing containing the residual gas was inadvertently cut as well and a small fire started. The welder immediately shut off his torch and ran for a nearby fire extinguisher. In the short time that it took him to return with the fire extinguisher the small fire had self extinguished.</p>

s.16(2)

2001-055	On August 14, 2001 at approximately 12:30 p.m. during routine pigging, Westcoast pipeline technicians, [REDACTED] and [REDACTED] depressurized the 20 inch Grizzly launch barrel and opened the pigging closure. A pig in the closure had been loaded on July 2, 2001 , but not shipped due to low flows in the pipeline. Mr. [REDACTED] noticed that the back of the pig had started to smoke and warned the other technician that it was probably iron sulfides. The barrel then erupted into flames, both employees, per operating procedures were wearing self contained breathing apparatus. Mr. [REDACTED] ran to the truck for a fire extinguisher and Mr. [REDACTED] ran to the corrosion injection building for the onsite fire extinguisher. The fire was then put out. After close examination , it was determined that the O-ring on the barrel door had suffered damage from the fire. The barrel door was closed and the valves were locked out to prevent opening and re-pressurizing of the barrel until the O-ring was replaced the following day.
2001-059	A crew was digging up an underground domestic fuel supply gas line to a company house at the station as the house had been sold and was in the process of being removed off of Westcoast Energy property. A back hoe operator snagged the 3/4 inch line with the hoe and broke it. The line was isolated and repaired. The pressure in the line was 39 psi at the time of the incident. There was no fire or injuries The incident was reported to the TSB by [REDACTED] of Westcoast.
2001-062	An oil leak on the power turbine on the No 2 unit occurred and ignited. Source of ignition is suspected to be the hot power turbine casing, with a skin temperature higher than the autoignition or flash point of the synthetic oil used and leaked from the power turbine. Unit was shut down and Operator put out the fire with a fire extinguisher. Insulation surrounding the power turbine was removed to ensure no fires were burning under or in the insulation. Source of the leak was not established at the time of reporting. Incident was reported to TSB by [REDACTED]
2001-063	[REDACTED] of Enbridge Pipelines [REDACTED] called the TSB to inform them (and the NEB) of an incident which occurred at the Edmonton Terminal. At 19:26, Sept 26, employees noted an electrical arc in the switch gear in the electrical building, when starting a pump. The pump failed to start and all 5 pumps shut down. At 1:45 am Sept 27th, two of the 5 pumps were brought back on line. No other details were provided. Investigation is underway by Enbridge and details will be forwarded to the TSB and NEB when available. Received detailed incident report and this was investigated. Attributed to faulty breaker that was misaligned when installed. This switchgear will be out of service until summer 2002.

s.19(1)



2001-064	<p>██████ of Enbridge Pipelines contacted the TSB (Ron Clark) at 15:30 EDT, Sept 29th, to report that Edmonton Gas Control Operations noted a pressure drop on Line 10, at MP 185 █████ near Binbrooke Ontario. The upstream compressor was stopped, downstream was maintained to draw down the volume within the pipe to minimize spill volume. At time of reporting, approximately 100 bbls of crude oil was estimated to have been released. Enbridge personnel were onsite at time of reporting. TSB went to site to initiate investigation.</p> <p>On Oct 1st, updated information provided to the NEB (from the TSB investigator), put the estimated spill volume at 500 bbls, with approximately 250 bbls already recovered. In addition, 3 families were relocated away from the spill area due to the potential for traffic, smell and noise as a result of the repair and restoration planned to be done.</p> <p>As at Oct 1st, the line had been repaired and was back online.</p> <p>The pipe failure mechanism appears to be a result of corrosion. The section of pipe has been seized by the TSB for detailed inspection purposes. The NEB has been kept apprised of all activities and findings through the TSB.</p> <p>The NEB close out determined the following:</p> <p>This incident may have been avoided if Enbridge had been aware of the implications of echo loss. Industry has a responsibility to ensure that it has qualified staff reviewing the ILI data. Also, ILI vendors have a responsibility to ensure that their clients understand their reporting structure and the terms used and what are the limitations of their products.</p> <p>Enbridge has undertaken numerous corrective measures that should prevent a reoccurrence of a similar failure. Companies must ensure that they perform thorough condition monitoring and inspections when developing prioritization models. Board staff, are satisfied that Enbridge has identified the issue and has a plan in place to deal with any issues identified during the investigation.</p> <p>PII's willingness to examine the ultrasonic wall measurement data that it has gathered for echo loss and its program to better inform companies about the echo loss issue is a positive step in ensuring that failures due to echo loss are not repeated. Board staff are satisfied with PII's response to the issue</p> <p>There was no evidence to indicate that the PLC communications failure at Tonawanda contributed to the failure of Line 10. The PLC communications failure, however, did make it impossible for the CCO to access information from Tonawanda to assist in assessing the reason for the pressure drop at MP 1896. Enbridge has implemented a plan to ensure that their SCADA and alarm system are functional. Board staff are satisfied that Enbridge has indicated that they have identified the issue and will act proactively to prevent a reoccurrence.</p>
2001-065	<p>On 01-Oct-2001 at 13:00 PST, at Westcoast Energy's Summit Lake Compressor Station 4A, the station relief valve for Units 1 and 2 lifted to the open position for approximately 3 seconds venting sweet natural gas to the atmosphere. WEI operators were there at the time and immediately isolated the valve. The pilots of these valves were serviced prior to the occurrence of this incident. Originally, vibration was suspected to have been cause of the relief valve to lift, however further investigation concluded that an incorrectly set (under-setting) of the relief valve pilot was also a key contributing, if not the key, factor causing the incident.</p>

2001-067	<p>On 09 June 2001 at Westcoast Energy Inc's (WEI) Fort Nelson Gas Plant in B.C. a release of SO2 into the atmosphere was discovered while checking a temporary repair to a leak that had occurred on 25 May 2001(incident 32 -2001). Personnel found the leak one meter away on the 610 mm acid gas line, off the 762 mm tee on the same line which the 25 May incident occurred. A temporary repair was immediately made to this leak until such time as a permanent repair was possible. Permanent repairs were made on 22 and 23 June 2001.</p> <p>Note: NEB was not aware this incident (067-2001) had occurred until 25 Sept. 2001 when NEB received a detailed incident report from Westcoast for incident No. 32-2001 which included relevant info to this 9 June incident. As a result NEB staff created a separate incident number (67-2001) for the 9 June incident.</p>
2001-068	<p>In an extremely remote area 60 miles from Fort Nelson BC, CNRL was transferring condensate from #3 and #4 Tanks to the #6 Tank, The pump was left on overnight , the night of Sept 30. Tank #6 overflowed approximately 4.2 cubic metres of condensate into the clay lined bermed area around the tanks. The overflow was pumped back into tanks 3 and 4.</p> <p>On 30 Sept 2001, the contractor who operates the station for Westcoast Energy Inc, started the condensate water pump in order to move water from the condensate storage tanks 3 and 4 (400 barrels in each tank) to the boiler tank 6 (200 barrels) to be evaporated. As a result of the decrease in pumping efficiency over the years, the pump had been recently rebuilt. Previous to being rebuilt, the pump required 72 to 96 hours to transfer the water from the storage tanks to the boiler tank. On 01 Oct 2001, the contractor arrived at site and discovered that the pump had transferred the entire volume from tanks 3 and 4 into tank 6, which caused an overflow of approximately 4.2 cubic meters of condensate and water into the earthen containment berm. That same day, the contents (water, condensate and rain-water) from the containment berm were pumped back into the stabilization tanks. Approximately 5 cubic meters was recovered.</p> <p>CNRL subsequently reported that all was cleaned up.</p> <p>CNRL [REDACTED] s.19(1)</p> <p>[REDACTED] Control Room [REDACTED]</p> <p>Site number DA69D</p> <p>Site is owned by WEI, the condensate is owned by CNRL.</p>
2001-070	<p>Line 4 was overpressured in excess of 10% (hydro test pressure of the line was not exceeded) upstream of the Glenboro Pump Station due to a valve problem encountered at the Glenboro station. A stem nut had stripped on the remote controlled valve during a start up of the line and the valve's actuator went up giving an indication through the SCADA that the valve was open when it was actually still closed. With the nut having stripped it could not grab the valve stem to open the valve. As a result, a pressure spike was noted.which exceeded the MAOP of the line. There was no damage to the line. A detailed Incident Report is being prepared for submission to the National Energy Board.</p>
2001-071	<p>On 12 October 2001 Enbridge Pipelines Inc. (Enbridge) was in the process of removing contaminated soil from the location of a previous leak that occurred on its NPS 20 Line 10 pipeline on 29 September 2001, (Incident 2001-064) near Binbrook, Ontario. The contaminated soil was being removed from the leak site and and was being replaced to remediate the area. During the removal process, dozers were used to move petroleum-contaminated soil from the affected site to the loading area. While removing the soil, the blade of the dozer contacted a stone creating a spark and igniting the product in the soil.</p> <p>The fire was immediately extinguished by on-site personnel using a portable extinguisher. No additional cleanup other than that in progress is required as a result of this incident.</p>



2001-072	<p>A PUMP SEAL WAS CHANGED ON UNIT 1.3 AT LOREBURN PUMP STATION. WHEN THE UNIT WAS STARTED UP, A BANG AND A FLASH FIRE OCCURRED.</p> <p>THE FIRE WAS IMMEDIATELY EXTINGUISHED. THE UNIT WAS SHUT DOWN AND ISOLATED. THE PUMP SEAL MANUFACTURER WILL RESPOND AND INVESTIGATE THE PUMP SEAL FAILURE.</p> <p>NO INJURIES REPORTED.</p> <p>This incident is the same as incident 2002-001. It is related to the same manufacturer's seal and failure. This occurred at the Loreburn Pump Station and 2002-001 occurred at the Edmonton Terminal.</p>
2001-074	<p>On November 7, 2001 the seal failed on Letdown Turbine C filling the seal pot with sour solution. The high level alarm in the seal pot did not work. There was a work request in to repair this high level alarm on October 30/01 but repairs had not been completed as this was not seen as an emergency requirement because no catastrophic failures such as this had occurred prior. H<sub>2</sub>S was thus released from the vent on the seal pot setting off the area and then the main horns. When the Letdown Turbine seals fails, it causes sour solution to over flow into the oil sump and also out of the seal pot vent. The venting system allowed the release of H<sub>2</sub>S and solution. The oil sump over filled and the seal pot vented to the outside of the building. Over 200 litres of sulfinol containing 25% water was vented to atmosphere and subsequently cleaned up.</p>
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2001-075	<p>A valve to the culvert precipitation discharge system was not blinded prior to turnaround maintenance operations. These operations included cleaning the stainless steel raschig rings by a vacuum truck. Operations staff believe that the rinsate would be directed to the process building sump system and subsequently treated through the sour liquids effluent treatment system. Instead, the rinsate found its way through an open valve to a culvert system which discharged onsite for runoff control. The raschig rings go through two backwash rinse cycles while in the vessels prior to removing for the third rinse, therefore the highest concentration of hazardous substances was greatly reduced.</p> <p>The estimated volume spilled/released was reported as 0.1 m<sup>3</sup> amine degradation products. Total volume recovered 30.0 m<sup>3</sup> rinsate water. The culvert flange pipe that the rinsate was flowing from was closed immediately on discovery, and absorbent booms and pads were deployed to the spill area. About 30.0 m<sup>3</sup> of rinsate remained in the containment berm and was subsequently treated through the plant's sour liquids effluent system.</p> <p>On June 5th, Hazco Environmental Services, used a vacuum truck and recovered over 10 m<sup>3</sup> of diluted rinsate. Further, approximately 90 tonnes of suspect soil was excavated, stored and covered to await characterization.</p> <p>Results show that no Industrial Level criteria of the BC Contaminated Sites Regulation were exceeded.</p> <p>Followup action as a result of this incident is that the berm culvert flange pipe was permanently blinded to prevent any discharge into the culvert system. The plant committed to revise the check list associated with the pre-ob safe work permit process to ensure that any discharges are going to the appropriate collection or disposal.</p>

2001-076	On November 9, 2001 an operator was opening the letdown separator outlet valve. The valve was approximately 1/8 open when the operator heard an unusual noise. The noise was sour solution (small amount) and sour gas escaping from the vent of the Letdown Turbine seal pot. The vent line is routed through the wall directly below the deck where the area operator was standing. The area operator quickly closed the valve and left the area. There was also a release from the oil sump vents on the Letdown Turbine. The H2S that was released when the operator opened the letdown outlet block valve set off the main horn. Workers on a job outside the building were in the direct vicinity of where the seal pot vent line vents. They were able to evacuate the area without incident. No injuries resulted from the incident.
2001-077	On 20 October 2001 a pipeline contractor's employee (Mr. [REDACTED] of Twin Rivers Contracting) had his left hand index finger amputated as a result of it being pinched by a boom that dropped 4 to 6 inches onto it. While holding onto the winching sheaver to align the boom stick for pinning with the winching sheave knuckle, the boom stick dropped and pinched the employees's fingers. An alignment tool of some sort (such as a crow bar) should have been used to align the winching sheave knuckle with the boom stick. The incident occurred about 35 kilometers south of Quesnel B.C. on Westcoast's right-of-way. The injured employee was immediately taken to the Prince George Hospital by ambulance.
2001-078	<p>H2S/SO2 was released for 2 - 3 minutes when a blower tripped causing a back pressure to a furnace (estimated 3 psi). A release resulted thru what is presumed to be a relief vent. If further info required the contact person at Westcoast is Mr. [REDACTED] at his work [REDACTED] or home at [REDACTED]</p> <p>At approximately 09:06 hours local time on November 22, 2001, in preparation for a maintenance procedure at the sulphur plant, the load on Train 10 was being increased and the load on Train 11 decreased. The increase in air demand through the Train 10 air blower apparently caused a momentary vibration, which allowed a knife-edge latch to trip (mechanical shut down) on the steam turbine (blower engine). As the air blower speed decreased, the pressure in the inlet air line also decreased, allowing the furnace pressure to overcome it and allowed sour gas to flow backward out past the check valve which failed to seat fully. As a result, a discharge of SO2 travelled back through the air blower and was discharged to atmosphere. The operator closed a manual stop valve to block the gas flow. The standby air blower was started up and put on line for Train 10 and the original air blower, which tripped, was left down for an investigation of the incident and to assess the necessary mechanical repairs. Westcoast estimates that less than 30 cubic feet of sour gas was discharged.</p>
2001-079	On December 14, 2001 at 10:10 hours CST, a contract welder was welding a NPS 2 x NPS 1 Schedule 160 Swedge nipple on the NPS 2 riser on the Line 100-2 side of the Line 1:2 suction crossover valve (NPS 24 ball valve) when he observed a fire in the base of the NPS 24 suction crossover piping. The welder had just completed the bead weld and was looking into the Swedge nipple to visually check the interior after the initial weld when he observed a flame in the piping approximately ten feet down. The welder immediately notified TransCanada's Mechanical Technician at the site who promptly extinguished the fire by discharging a 20 lb. Ansul fire extinguisher into the Swedge nipple. TransCanada immediately shutdown the job. There were no injuries or fatalities or adverse environmental effects or service reductions associated with this incident, and the pipeline did not sustain any damage.
2001-081	HLV was feeding product to the Husky pipeline transfer site. Due to problems at HLV, an unusual pump configuration was used which produced higher pressure than normal at the transfer site. The high suction shutdown was not programmed in the PLC as it should have been. A relief valve opened as programmed and product flowed to sump which has 2 level switched. Alarm worked but shutdown failed. Operator responded to alarm and manually shut down, but drain down volume overflowed sump by 1.75 m3. The product was contained on company property.



2002-001	<p>As a result of a pump seal failure on line #1 at Enbridges Edmonton terminal, approximately 7 litres of NGL was released. Release was picked up by gas detection on high LEL which shut down the pump. The release was contained within the building.</p> <p>The pump was flushed with synthetic crude and remaining residue was subsequently flared off.</p> <p>Pump seal will be replaced asap</p> <p>Contact name provided:</p> <p>[REDACTED]</p> <p>General Manager for Western Operations</p> <p>[REDACTED]</p> <p>Also see incident 2001-072. Similar occurrence at the Loreburn, Sask station.</p>
2002-002	<p>On 9 January 2002 at 13:00 EST , TCPL personnel discovered a small natural gas leak on the combustor fuel nozzle of the RB211-A gas turbine engine in the B plant. The leak was insufficient to set off the gas detection system and did not ignite. The gas was leaking from a stainless steel tube fitting on a burner feed pipe. The employee removed the fitting and associated burner feed pipe to look for signs of fretting. No deficiencies were noted. The component was reinstalled and the other 18 burner feed pipe fittings were checked for tightness without further deficiencies noted. The burner feed pipes are originally torqued at Rolls Royce and Rolls Royce indicated to TCPL that they could not foresee a reason for the fitting to become loose. TCPL has checked the other RB211s without discovering any deficiencies and has concluded that this is not a systemic problem.</p> <p>Preliminary Information:</p> <p>On 10 January 2002 TCPL personnel discovered a small natural gas leak from a fitting on the combustion fuel chamber on the RB211-A gas generator at TCPL's B Plant of Station 49 near Kenora, Ontario. The amount of gas released was not enough to activate the Station's gas detection system. The unit was shut down following the discovery of the leak and repairs are expected to be completed on 11 January 2002.</p>
2002-003	<p>At 05:35 MST on January 18, 2002, a contractor engaged on the Enbridge Pipeline Maintenance ("PLM") crew arrived at Enbridge's Kerrobert Terminal and noticed a large amount of oil on the ground near the site entrance. At 05:37 MST, the Edmonton Control Center shut down all lines and isolated the individual pump stations at the Kerrobert Station. Company personnel verified that the leak originated near the Station 4 pumphouse adjacent to Unit 4-U-4. The site was secured by company personnel and the Incident Command System was implemented. Additional company personnel were mobilized to the leak site to initiate oil containment, oil recovery and pipeline repair operations. It is estimated that approximately 1075 m3 of crude oil (Gibson Blend (LLG 693), Cold Lake (CL 814) and Pine Bend Special (PBS 766)) was released as a result of this incident.</p>
2002-004	<p>While loading up the compressor unit during startup of the gas compressor/turbine in the G Plant, a small diameter (approx 1/2" TBC) flex hose failed. This failure resulted in the release of a negligible volume of natural gas into the turbine enclosure. The release was detected by the gas detection with in the enclosure and caused a shut down of the unit. The failed flex hose was identified and repaired.</p> <p>To ensure that there were not other similar hoses in the area that could fail, TCPL also checked all other similar 'pig tails' between the manifold ring and the burner.</p>

2002-005	<p>On 13 February 2002, at approximately 09:50 CST, at the Steelman Terminal in Saskatchewan, Enbridge personnel discovered a leak of crude oil from a valve on the discharge side of a small pump. A gear pump used to drain incoming field headers had been left with the discharge valve and the ½" bleedoff valve open. The 2" check valve between the discharge valve and the bleed-off valve failed to hold. As a result, the bleed-off barrel overflowed during the night. It was estimated that 12.0 m3 of LSB crude oil was spilled on approximately 186 m2 of Steelman Terminal Station property. The 2" check valve was replaced with a spring-loaded valve on the bleed-off.</p> <p>The incident was reported by [REDACTED]</p>
2002-006	<p>On February 12, 2002, personnel responded to a callout to restart the 'C' Plant at Compressor Station 58, near Ignace, Ontario. The unit had shut down on Fuel Control Unit Drive Failure and after waiting the required two hours for a permissive start, Gas Control was unable to remotely restart the unit. At approximately 03:00 hours Eastern Daylight Time, the personnel were approaching the 'C' Plant when they noted that the #2 relief valve on the unit fuel gas run had opened and was venting natural gas to the atmosphere. TransCanada is unable to provide the volume of gas released because it is unclear how long the gas had been venting.</p>
2002-007	<p>On January 3, 2002, at approximately 16:00 hours Eastern Standard Time, station personnel heard the sound of gas escaping in the vicinity of the NPS 30 Line 100-1 discharge side valve enclosure. Upon investigation, it was determined that the gas was escaping from a disconnected NPS 3/4 hydraulic oil supply line to the Shafer gas/hydraulic operator. The open-ended tubing allowed the pressurized operator bottle to expel the hydraulic oil onto the ground. Once the bottle was emptied of its hydraulic oil, the gas continued to vent to atmosphere.</p> <p>The employee immediately isolated the power gas supply to the Shafer valve operator and left the enclosure door open to ventilate the building. TransCanada then notified the local Ministry of Environment Officer Mr. [REDACTED] of the incident.</p> <p>The affected tubing and male connector have since been replaced and approximately 70 litres of Univis J13 hydraulic oil was added to the system. The valve operator was returned to normal gas service on January 4, 2002, without further incident.</p> <p>TransCanada has notified the Ministry of Environment Officer Mr. [REDACTED] that the clean-up was complete and that approximately two 45 gallon drums of oily gravel and contaminated soils would be stored in an Enviropac at Compressor Station 84 until the next waste materials pick-up.</p> <p>The investigation revealed that the hydraulic supply tubing was not within spec. The wall thickness of the tube was 1.24mm, whereas the Company standard requires a wall thickness of 1.65mm. Furthermore, it is suspected the tubing was not properly tightened and over time vibration caused the fitting to loosen. The balance of the fittings were tightness checked, without further incident.</p>

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2002-008	<p>On 15 February, 2002, at TCPL's Maple, Ontario Compressor Station 130, an NPS 6 mainline relief valve opened and released gas to the atmosphere for approximately 1 hour. The valve was subsequently closed and locked out to isolate it and stop the flow of the escaping sweet natural gas. TCPL had been notified of the incident through its emergency number by the Vaughan Fire Department who indicated that there was an audible gas leak at the station. TCPL staff were then immediately dispatched and arrived at the site at approximately 20:10 hours Eastern Standard Time (E.S.T.) to investigate. Approximately 56E3M3 of sweet natural gas was estimated to have been released to the atmosphere as a result of the incident. The incident occurred at approximately 19:08 hours E.S.T.</p> <p>The Vaughan Fire Department had initiated an evacuation of nearby residents upon its initial arrival at the scene. Post followup discussions with the neighboring public indicated that they did not have any immediate concerns with the gas release.</p> <p>An internal inspection of the relief valve following the incident determined that there was extensive internal mechanical damage and that the reset mechanism on it had failed.</p> <p>There were no injuries as a result of this incident having occurred.</p>
2002-009	<p>On March 4, 2002, at approximately 10:00 hours Central Standard Time, personnel at Compressor Station 52 heard the sound of gas escaping in the station yard. Upon investigation, they quickly determined that natural gas was venting from a broken NPS 3/8 suction pressure sensing line to the pressure differential switch on the 1:2 discharge crossover valve. Personnel immediately isolated the gas supply, by closing the needle valve located below the break. The repair comprised the installation of a vibration coil in the new pressure sensing line. The crossover valve assembly was returned to normal gas service without further incident.</p>

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2002-010	<p>Tank roofs are routinely drained of water through drain piping running through the tank to a shutoff valve near the bottom exterior of the tank shell. The drain valve and external piping are winterized by filling with an antifreeze solution after each use during winter months. When the roof drain check was done in February 2002 on Tank 222 at Westover, a small amount of oil was observed flowing from the valve after it was cracked open indicating drain line leakage inside the tank. The valve was closed immediately. With crude oil known to be in the drainpipe, the valve and spool piece could not be re-winterized with antifreeze.</p> <p>On the evening of March 5, 2002, crude oil was discovered in the lot of Tank 222 escaping from the body of the drain line shutoff valve. Weather conditions had been cold and windy with temperatures below zero degrees Celsius. Upon investigation, Enbridge determined that water within the valve froze causing the body bolts of the two-piece valve to fracture which then caused the pieces to separate. A new valve with a one-piece body was installed to replace the damaged valve.</p> <p>Cleanup of the leak started immediately upon discovery. Excess oil recovered from the tank lot was injected into a sump tank located at Westover Station. The frozen ground conditions limited the migration of oil to the subsurface soils. Contaminated soil was excavated and placed into lugger buckets. The excavated area was backfilled with clean clay fill. Approximately 240 cubic yards of excavated soil was tested and is being disposed of at an approved facility.</p>
2002-011	<p>On Friday, March 08, 2002, Enbridge Pipelines Inc reported a release of approximately 15 cubic meters (15, 000 litres) of crude oil at the Cactus Lake Pump Station, SK. All product released was reported to have been contained within the site property. On discovery of the spill, the line was isolated and shut down. The sump to the mainline is suspected to have failed causing the leak.</p> <p>██████████ of EPI reported the spill to the TSB, who in turn contacted the NEB.</p> <p>██████████ number is ██████████</p>
2002-012	<p>On Sunday, March 10, 2002, at approximately 11:48 EST, a nearby resident contacted TCPL emergency line to inform them of a natural gas release from a blowdown valve at the Belleville Compressor Station, Ontario. Gas Control was contacted who in turn dispatched maintenance crews to the site. Crews isolated the blowdown manually, which was reported to have been completed at approximately 12:48 EST.</p> <p>Gas Control verified that there was no overpressure situation at the time of blowdown trip, however there was a significant storm occurring during this time. Investigation into root cause is underway.</p> <p>It was reported that there were no injuries, fires or significant environmental impacts.</p> <p>There was no mention of why Gas Control did not pick up the release via SCADA.</p> <p>Incident called in by ██████████ of TCPL</p>

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2002-013	<p>On March 20, 2002, TransCanada employees conducted a planned inspection at Compressor Station 25, near Moosomin, Saskatchewan. While inspecting the 'A' Plant Auxiliary Wing, they discovered evidence that a small fire had occurred in the East exterior wall of the building, where the #1 auxiliary power unit (APU) exhaust piping exits through the building wall. In removing the interior metal cladding, personnel confirmed that some of the wooden framing material was burned. There had been no release of natural gas prior to or as a result of this incident. The incident did not pose a risk to the public or to the environment.</p> <p>The Auxiliary Wing is located immediately beside the 'A' Plant building and it houses three APU Units, Control Panels, starting air compressors, SCADA Terminal, firewater foam system and glycol/water filled cooling system for the 'A' Plant, and some miscellaneous electrical panels. The APU is designed to start automatically if power is disrupted for any reason. Records indicate the APU started automatically on two occasions this year, having run at least five hours each time. It is therefore suspected the fire took place sometime in the previous six weeks, and because it was limited to the interior of the wall, it was likely deprived of oxygen and self extinguished quickly.</p>
	<p>On April 5th, 2002, personnel conducted an on-site investigation. During discussions with site personal, it was discovered that modifications had been made to the exterior walls of the auxiliary wing in the mid. to late 1990s. Additional wooden framing was installed to support added insulation and new interior finishing panels were installed in the North, East and West walls.</p> <p>It was during these modifications that the contractor had apparently installed a sheet of 3/4" plywood close to the APU exhaust header. Personnel discovered a number of gaps between the exterior wall, where the header exits the building and the exhaust header insulation. The insulation did not cover the full length of the exhaust header to the exterior of the building. The insulation ended inside the wall creating another gap, which exposed the combustible materials to the radiant heat from the header. Further, the outer covering (tin) around the header had gaps, which allowed the heat to escape into the wall cavity. TransCanada has concluded that the radiant heat from the exhaust pipe had ignited the plywood and the fire was temporarily sustained by outside fresh air provided through the gap in the exterior wall.</p> <p>Personnel have inspected the other two APU units at Compressor Station 25 and found evidence of combustion around the exhaust exit points. All of the combustible materials around the exhausts have now been removed.</p>
2002-014	<p>On 3rd of April, 2002, Westcoast personnel detected a Hydrogen Sulphide (H<sub>2</sub>S) odour in the gas treating building while performing a routine tour of the facility. The operator used a snoop leak detection fluid to locate the pinhole leak on the threads of the #3 contactor float column steam out reducer (see diagram). The operator informed Board operator and Operations Team Leader. Maintenance department were also informed but maintenance were doing other priority work elsewhere in the facility. When the leak worsened at approximately 19:00 on the 4th of April, 2002 it was decided that operating staff would perform repairs. None of the H<sub>2</sub>S and LEL detectors in the Gas Treating Building registered a detectable level of gas. The leak lasted less than 24 hours and was not measureable on detectors. These detectors are set as follows: LEL detectors alarm @ 20% of lower explosion limit while H<sub>2</sub>S detectors alarm @ 10 ppm. The threshold limit value - time weighted average (TWA) for H<sub>2</sub>S is 10 ppm.</p>

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2002-015	<p>At approximately 00:40 MST , April 15th, 2002, TCPL reported a rupture of Line 100-3 at MLV 31+3 near Brookdale Manitoba (west of Winnipeg). The natural gas was reported on fire with flames reaching 200' in the air.</p> <p>RCMP assisted in the evacuation of the hamlet of Brookdale and surrounding area, a population of approximately 100.</p> <p>At approximately, 01:45 MST TCPL [REDACTED] advised that the fire was out except for secondary grass fires.</p> <p>Lines 100-1, 100-2, 100-3, and 100-4 were immediately isolated between stations 30 and 34.</p> <p>Shortly after the fire went out, TCPL re-opened Line 100-1.</p> <p>The integrity of Lines 100-2 and 100-4 needed to be verified so were not opened until pipe was daylighted and coating integrity had been verified.</p> <p>Operations Compliance Team members [REDACTED] and [REDACTED] went to the site immediately. TSB dispatched a regional person from Winnipeg and then sent Daphne Snelgrove and Diane Rocheleiu as Lead Investigators.</p>
2002-016	<p>On 12 April 2002 a spill of approximately 20 - 25 cubic meters of crude oil occurred at Enbridge Pipelines Inc. Metiskow pump station in Alberta.</p> <p>The spill was the result of a failed instrument line (1.5 to 2.0 inch suction pressure transmitter line) and was contained to the station site. The spilled oil was cleaned up using a vacuum truck.</p>
2002-019	<p>A local farmer reported a release of crude oil to Enbridge Glenboro Operations personnel. Company personnel immediately reported the incident to the Edmonton Control Centre. Pipelines operating at the time were shutdown and the Emergency Response Plan was activated. After removing the free product and excavating the area, the source of the release was found to be from Line 13 (16" diameter). After a Non-Destructive Examination was completed on the pipe, a 16" x 14" (long) Plidco repair sleeve was installed over the leak.</p>
2002-020	<p>At approximately 15:20 MDT, Duke Energy aka Westcoast Energy Inc, experienced a rupture of an 18inch diameter natural gas pipeline approximately 7 km SE of Ft St John, BC. The location of the rupture is at milepost 0 [REDACTED] and is near and along the Alaska Highway. The Taylor BC fire department blocked off the south end of the Alaska Highway and the RCMP blocked off the north end.</p> <p>The pipeline does have linebreak automatically controlled valves installed, however the pressure did not drop low enough to initiate an automatic shutdown. According to the report provided by Duke Energy, a Duke employee was near the location of the rupture doing valve maintenance when the rupture occurred. The employee was not injured (but was shook up pretty good!!) so contacted Gas Control to advise them of the problem and to shut down the line, before the pressure dropped to a point to initiate automatic shutdown by linebreak valves. The location of the rupture was reported as approximately 3 [REDACTED] miles from the upstream valve and 6 [REDACTED] miles from the downstream valve. The gas was reported to have blown down within 20 minutes. The highway was allowed to open at approximately 17:07 MDT.</p> <p>There was no ignition of the gas release and hence ...no fire. The gas was reported to have an H2S (sour gas) content of approximately 0.41 percent...low.</p> <p>Houses and a trailer park located within 0.5 km of the rupture site were evacuated (not sure by who). (Actually, it was the occupants of the houses and the trailer park that were evacuated.)</p> <p>When asked of the size of the crater, Duke Energy reported that the piping impacted by the rupture was largely above-ground piping near the pig launcher.</p> <p>FYI: In discussions with Duke Energy, it appears that there is a 26 inch diameter DC Trunk pipeline that runs parallel to this line and also along the Alaska Highway. This 26 inch line however, carries sour gas. Fortunately, this line did not appear to be impacted by the rupture of the adjacent line. There was no report of this line being shut down as a preventive measure.</p> <p>Due to the closeness of the rupture to Fort St John, media attention is expected.</p> <p>Transportation Safety Board indicated that they were planning to mobilize one of their investigators out of Edmonton (immediately).</p> <p>Josef Kopec (Operations Compliance) and Ross Hicks (Communications) will be heading to the rupture site on the first flight out of Calgary (16 May 2002). They expect to be at the site around 10:00 am MDT on 16 May 2002.</p> <p>Line returned to service. on 18 May 2002.</p>

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2002-021	<p>On Friday, 07 June 2002, Enbridge Pipelines personnel were preparing for NGL injection at the Cromer Terminal in Manitoba, when a gas alarm was initiated by a trace amount of NGL leaking from the 4-way meter prover valve flange. The gas alarm initiated a shutdown of the operation, while Enbridge employees responded to the leak. The prover valve had been recently serviced, and the flange had not been torqued down. Employee tightened the flange, and resumed operations.</p> <p>There were no injuries, no fire and no significant environmental impacts as a result of the release.</p>
2002-025	<p>On June 6, 2002 at 1307 hours Westcoast Energy Inc doing business as Duke Energy Gas Transmission (DEGT) flared some hydrocarbons at their Pine River gas plant to flare stack. A spark from the flare landed in a dry grassland area igniting a 200 ' x 300 ' grass fire. There were high winds at the time of the incident and, thus, a fire developed and spread quickly through the grass. The fire started at 1307 hours and was extinguished at 1347 hours. The fire did not leave the plant site.</p> <p>The fire was contained and extinguished by Pine River Gas Plant employees using common techniques (water and dirt) for fighting grass fires.</p>
2002-026	<p>Suspected seal failure on unit 1.2 at Cromer terminal resulted in a release of trace amounts of NGL.</p> <p>Unit was shut down automatically on gas detection.</p> <p>Enbridge personnel were called to site to ensure proper isolation and shutdown.</p> <p>All other units were returned to service. Unit 1.2 remains isolated.</p> <p>Once purged, unit 1.2 will be checked in order to investigate cause of leak.</p> <p>This is expected to be started June 14.</p> <p>This incident was called in by [REDACTED] of Enbridge Pipelines.</p>
2002-027	<p>A Valve on the Alaska highway pipeline was scheduled for repair on 13 June, 2002 morning. A section of the pipeline was depressured to facilitate the valve repair. The gas vented from this depressuring was flared at Kobes compressor station pipeline flare pit. This Kobes flare pit remains in service only to be available to depressure the 20 inch Alaska highway pipeline. This flaring process occurred at a time when there was a combination of strong winds and warm dry weather. Dry vegetation in the vicinity of the flare pit ignited due to these conditions and the prolonged flaring requirements. A crew of nine (9) using portable water pump and fire hose and shovels extinguished the grass fire and contained it to DEGT property. The grass fire burnt approximately 1/2 acre of grass adjacent to flare pit.</p>

s.19(1)

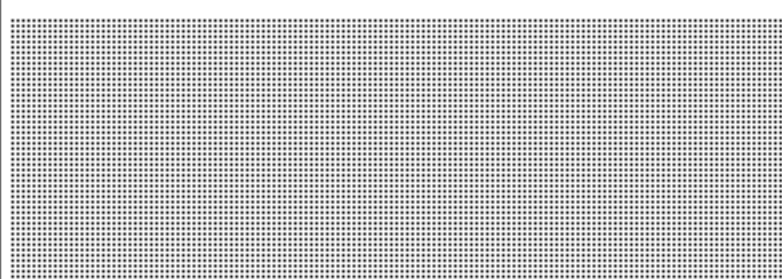
2002-028	<p>Westcoast Energy Inc doing business as Duke Energy Gas Transmission (DEGT) grass fire at MP 73 pigging yard flare pit.</p> <p>At approximately 13:20 MST on June 20, 2002 DEGT pigging crew was in the process of a pigging operation which involved de-pressuring the pigging barrel at MP 73 pigging yard so they could remove the pig from the pipelines. This pigging yard is at the junction of the 20-inch Alaska Highway receiving barrel, 20-inch Buick receiving barrel and 26-inch BC Trunk sending barrel. All the flare facilities associated with the pigging barrels are tied into one central flare stack. The barrel was fully de pressured and work was progressing to remove the pig, when one of the crew members noticed a small fire on the perimeter of the flare pit.</p> <p>At this point a call was made to Gas Control who in turn notified the FSJ Operations Team Leader of the incident. A crew member was dispatched immediately from Fort St. John to the site with back pack water pumps and shovels. A 450 Caterpillar in the vicinity was also sent to the site. The British Columbia Forest Service Fire Control Center was notified of the incident and a Forest Service representative was dispatched to the site to meet with Westcoast representatives. At this point in time Fort St. John Gas Control dispatched four (4) water trucks to the site.</p> <p>At 14:22 the Operation Team Leader and EH&amp;S Coordinator arrived on site. At this point there were five (5) Westcoast employees on site with a water truck and operator. By this time the fire had been extinguished and the area where the fire had been burning was being soaked with water. At 14:35 BC Fire Control Center was notified the fire was out and equipment was on its way to remediate the site.</p> <p>The BC Forest Service representative arrived on site to evaluate the situation and discuss the remediation plans which involved the continuation of soaking the area down with water, additional tilling of the flare site and cleanup of the brushing debris that would have potential for ignition in the future. The BC Forest Service was in agreement with the remediation plan and left the site.</p> <p>The approximate size of the area burned by the fire was 200 feet by 20 feet. The area surrounding the flare pit was bladed and cultivated to remove source of material for possible future ignition.</p>
2002-029	<p>On 20 June 2002, at approximately 15:20 EDT, a contractor sideboom was preparing to work on the anchors on the sulphur pipeline at the WEI Pine River Gas Plant when it let go (the winch was in the process of being anchored down), and rolled down the slope onto the sulphur pipeline. About 3 meters of pipe insulation was severely damaged and several other areas received minor damage. The impact of the sideboom on the pipe knocked the pipe off the stands. If and how much damage sustained by the pipe is unknown (at time of reporting). WEI immediately shut down the pipeline and initiated draining of the line. As a result of the sideboom rolling down the hill, the contract operator jumped from the sideboom and sustained minor injuries. The Transline contract operator was sent to Chetwynd General Hospital where he received stitches to his arm.</p> <p>Incident was reported to TSB by [REDACTED] of WEI [REDACTED]</p>
2002-030	<p>Westcoast Energy Inc doing business as Duke Energy Gas Transmission (DEGT) grass fire at 16 inch Wolf pipeline sending barrel flare pit 25 June, 2002.</p> <p>At approximately 12:20 MST on June 25, 2002 Fort St. John Gas Control received a call from a pigging crew that there was a small grass fire at the perimeter of the flare pit at the sending barrel of the 16-inch Wolf pipeline. Gas Control notified the FSJ Operations Team Leader of the incident. The Team Leader then contacted the pigging crew and was advised that the grass fire was under control. A Cat bull dozer from across the road had been put to work dozing up the burning grass. A water truck in the vicinity of the fire was dispatched to assist with fire control.</p> <p>By approximately 13:20 MST the grass fire was extinguished. A local contractor was instructed by DEGT to assign two employees for a 24 hour fire watch. The area surrounding the flare pit was bladed and cultivated to remove source of material for possible future ignition of the site and the ground was saturated with water to reduce the fire hazard. The approximate size of the area burned by the fire was 100 feet by 20 feet.</p>



2002-032	<p>On 09 July 2002, at approximately 07:15 MST, a farmer (resident) at MP 409. [REDACTED] about 1 km west of Stoney Beach, SK, reported a small fire on the Enbridge ROW located in his field. Enbridge personnel responded to the fire and extinguished it with 150 lb Hand held fire extinguishers. Employees noted a small crude oil spill (which was what was on fire). Volume spilled has yet to be confirmed, but is suspected to be less than 1.5 m<sup>3</sup>. The fire however, makes this incident reportable under OPR 99.</p> <p>Source of ignition is suspected to have been lightning.</p> <p>Enbridge crew is on site as is gearing up to excavate, to determine source of leak.</p> <p>Reported to TSB by [REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p style="text-align: center;">s.19(1)</p>
2002-033	<p>At 05:45 MST on 25 July 2002, Enbridge site Operations personnel at the Edmonton Terminal noticed NGL vapors venting from the NGL separator, which is adjacent to the NGL sampler building in Manifold 107. Enbridge personnel immediately isolated the sample building thereby eliminating the leak source. A 1/4" needle valve was inadvertently left partially open on the NGL sampler drain line during routine operations. The needle valve was closed and the product was drained from the piping. The building was returned to service at 06:15 MST on 25 July 2002. It is estimated that approximately 0.2 m<sup>3</sup> of NGL was released as a result of this incident.</p> <p>A small amount of gravel was removed in the area of the vent stack and disposed of in accordance with the company's environmental manual. New gravel was added with a minor amount of site re-grading.</p>
2002-035	<p>At 4:00 am of July 21, 2001, the Empress Pipeline Board Operator received a hydrocarbon detection alarm for the Herbert Pump Station. The detection system automatically shut down the station and bypassed the main flow around the station. An employee was sent to the site and, arriving at 6:45 am, found what appeared to be a small amount of butane vapour escaping from the seal on the #2 pump. The seal failure alarm had not been activated; the shutdown was triggered by a hydrocarbon leak detector 30 feet from the seal. The employee checked to ensure the discharge and suction valves were properly closed prior to isolating the power supply to the valves and pumps. Pump #2 was completely depressured and a hydrocarbon gas analysis of the area was done to confirm safe operating conditions. Pump #1 was then restarted at 8:00 am, providing a flow rate at 80% of pipeline capacity.</p> <p>There were no injuries, fatalities, or impact on deliveries to the customers.</p> <p>There were minimal environmental concerns as a result of this incident.</p>
2002-036	<p>On 31 July 2002 at approximately 01:30 hours PST, at DEGT's Compressor Station 2B near Azouetta, British Columbia, Duke Energy officials reported that a Station Operator had received a call from Vancouver Gas Control who reported a Unit 1 compressor alarm. Upon inspection of the station, the Station Operator found that the Unit 1 gas turbine was excessively vibrating and had initiated a high vibration alarm. Unit 1 was slowed from 5800 rpm to 4300 rpm, but vibration increased instead of decreased. A Unit Low Oil pressure alarm and unit shutdown next occurred. Inspection of the oil system an oil line found where a 3/4 inch nipple had fractured. The excessive vibrations had caused the nipple to fracture. An oil leak resulted in spraying hot oil onto the turbine and exhaust duct. The Station Operator noticed flames coming from the power turbine exhaust duct. The fire was immediately put out by the Station Operator. The flame detectors in the building also detected the flame and a second order emergency shutdown and gas evacuation of the Station was initiated through the Station Emergency Shutdown logic. The unit was shut down until repairs were completed on 25 October 2002.</p>

2002-037	<p>A flange leak occurred on the suction side of the Unit 13-U-3 at Glenavon Station releasing approximately 3.0 m3 of crude oil into a concrete drainage trough in the Line 13 pump house. The drainage trough drains into a 500-gallon sump tank. All oil was contained in the trough and tank with the exception of a small quantity of oil, which sprayed onto the concrete floor, surrounding Unit 13-U-3.</p> <p>Contact: [REDACTED] s.19(1) s.19(1)</p>
2002-038	<p>On August 7, 2002, at approximately 14:00 hours Central Daylight Time, a Mr. [REDACTED] of the Bench Hutterite Colony called the Foothills Pipelines Shaunavon Office to report a "somewhat audible" gas leak at kp 135. The Foothills Shaunavon Office immediately dispatched a technician to investigate the sighting. The technician reported that an o-ring in the pig receiver door at kp 135 had apparently ruptured, thus allowing an insignificant volume of natural gas to be released to the atmosphere.</p> <p>The technician also confirmed that the two NPS 2 by-pass valves and the NPS 10 kicker line valve were closed. However, they did not provide a positive seal allowing gas to enter into the pig receiver which is normally not pressurized. A further investigation is currently underway to determine a long-term fix to address the leaking valves. As it is normal practice to keep the receiver assembly isolated from the mainline, the incident did not impact normal gas operations.</p>
2002-041	<p>At 17:47 MST on 2 September 2002, Enbridge's Edmonton Control Centre received a phone call from some private citizens who had driven past the Cactus Lake Pump Station at pipeline mile post 180. [REDACTED] The citizens reported having observed at the station a black mist being sprayed onto a building, pools of liquid, and a strong crude oil smell. Upon notification of the suspected leak, the Control Centre shut down all lines that were running and isolated all of the pumping stations. The Western Region on-call person was contacted and dispatched field personnel to investigate at 18:00 MST. At 19:10 MST, field personnel reported that a 1" hydraulic hose on the Station 2 case-pressure instrumentation line had failed. All lines except Line 2, which was the line that the incident occurred on, were re-started at this time. Repairs to Line 2 were completed at 19:22 MST and the line was re-started at 20:11 MST. The crude oil released was Cold Lake Crude. It was confined to station property, which is fenced off from vegetated areas and wildlife habitat. The estimated volume of crude released was 27m3. s.16(2)</p>
2002-043	<p>On 22 September 2002, at 13.30 hours P.S.T., Duke Energy employees were conducting an excavation dig on the 323.9 mm (12 inch) diameter Milligan Pee Jay Pipeline at kilometer post 37. [REDACTED] (mile post 23. [REDACTED]) in the Ft. St. John B.C. gathering area. The pipeline was 5LX46 seamless pipe which had originally been installed in 1969. The dig was being conducted as a result of findings determined from a deformation tool that had been run through the line on 5 September 2002 which had identified a buckle in the pipe. Once excavation had started and the overburden had been removed, the line began to leak sour gas. The pipeline leak was at the toe of the south approach slope to the Beatton River.</p> <p>The H2S content in the gas was 0.87% and the amount of gas released was estimated at 0.01 mmscf. Line depressurization began immediately and repairs commenced. A section of pipe 16.1 meters in length was cut out and replaced with 323.9 mm O.D. X 6.4 mm W.T. Cat. II Grade 359 pre-tested pipe. The pipe and the circumferential welded pipe joints were coated in place with a spray applied two-part epoxy. The pipeline was returned to service at 14:00 hours P.S.T. on 25 September 2002. s.16(2)</p>



2002-044	<p>On 8 October 2002 a sour gas leak occurred on a buried pipe flange at Westcoast Energy Inc.'s "Buick Creek Pipeline Booster Station Pigging Yard". The leak occurred as a result of an Operator closing an incorrect valve in the yard which resulted in line pressure increasing to a level where the flange gasket began to leak.</p> <p>A producer (Samson Petroleum) that injects into Westcoast's Buick Creek gathering pipelines at the Pigging Yard had called Westcoast's Gas Control requesting to have its receipt point valve shut-in to allow maintenance work to its system. Westcoast's Gas Control then dispatched an Operator to the Pigging Yard to close the Producers receipt point valve. However, due to a mislabeling of the valve(s) at the site the Operator closed the main bypass valve for the Buick Creek line. The closed bypass valve went undetected for about 2 hours until Westcoast placed online its downstream Compressor station # 1 and the McMahon Gas Plant which had both been down. Once both these facilities were operating for about 2 hours, Westcoast's Gas Control observed high pressures in the Buick Creek Pipeline. Gas Control then dispatched an Operator to the Pigging Yard. When the Operator arrived at the site he observed a gas leak coming from underground. He re-examined the valving set up and recognized that the incorrect valve had been closed in error due to valve mislabeling. He then opened the bypass valve to allow the line pressure to equalize between the 2 Buick Creek lines. When the pressure equalized the leak emanating from the buried flange stopped. The bypass valve was then closed with all online Producers on the Buick Creek line having been asked to shut-in their facilities production to allow for repair of the flange leak. The 10 inch Buick Creek line and the Producers were out of operation from 8 October to 12 October 2002 while repairs were made.</p> <p>Reported to TSB-NEB at 00:45 MDT Oct 09th, by   of WEI/Duke  s.19(1)</p>
2002-047	<p>At 04:30 hours on 23 October 2002 a sulphur plant operator discovered a fire burning at the base of an inside sulphur pump on a recirculation system. The piping was leaking hot sulphur onto the pump's base and ignited. When the fire was discovered the building was full of SO<sub>2</sub> gas, so the fire had to be extinguished from the building doorway. The sulphur was determined to have escaped due to a pump shaft seal leak. A full investigation will follow by the company..</p>
2002-048	<p>On 15 November, 2002 at McMahon Plant at approximately 05:00 a DEGT operator was making routine checks of equipment in the sulphur plant area. When he entered the C reaction furnace building he detected a smell of SO<sub>2</sub>. Investigating where the source of SO<sub>2</sub> was from he noticed a fire in the C reaction furnace rundown look box and on the ground area next to the run down. The operator approached the fire from upwind and used a fire extinguisher to extinguish the fire. He then shoveled snow around the ground area to prevent re-ignition of the sulphur.</p>
2002-049	<p>Fire on pig barrel on 31 October, 2002. Operator was preparing to send a pipeline cleaning pig from the sending barrel on the 30 inch Fort St John mainline at compressor station 4B. The full time employee noticed that the 30 inch enclosure o-ring on the pigging barrel door required replacement. While the full time employee was getting a new o-ring from the truck, the casual employee attempted to remove the old o-ring with a striker he was carrying in his coveralls. A striker is a tool that a welder uses to create a spark to ignite his / her torch. This caused a spark creating a flash fire in the sending barrel. The casual employee received very minor burns (heat sensitive burn on hands and ears) and his hair was singed. No medical attention or lost time was required by the casual employee as a result of the incident.</p>

2002-051	<p>At approximately 15:00 MST on 29 Nov 2002, Enbridge personnel note a small leak emanating from Unit 1U4 check valve. at the Edmonton Terminal. The downstream flange set of Unit 1U4 was found to be leaking. Enbridge Pipeline Maintenance personnel that are located at the Edmonton Terminal, immediately tightened the flange set, which stopped the leak. Trace Amount of NGL was released. There was no disruption to the main line operation. No injuries or significant adverse environmental affects.</p> <p style="text-align: center;"><b>s.16(2)</b></p>
2002-052	<p>At 12:39 MST Dec 7th, TSB contacted the NEB (incident cellular) to report that at approximately 11:30 EST, TNPI had a failure of their NPS 10 pipeline located at milepost 39 3 km East of the town of St Clett, Quebec (near the Quebec.Ontario border). Product released was a low sulfur diesel and distillate. At the time of reporting, there was no idea of the volume of product released in the spill. Spill occurred in an agricultural field, which has drain tile throughout. TNPI indicated that some product entered a drainage ditch and that TNPI was in the process of using hay bales to filter and contain the spill and vacuum trucks to re-capture the product. Some product also entered a nearby stream as noted by a sheen on the surface of the water. TNPI is working to ensure all product is contained and kept away and out of all watercourses.</p> <p>TNPI indicated that a pressure drop was noted by their Line Control leak warning system, at which time the TNPI Emergency Response team was dispatched. Nearest resident 0.5 -1.0 mi from leak site.</p> <p>No evacuation was initiated.</p> <p>No fire.</p> <p>No injuries reported</p> <p>By the evening of Dec 7th, TNPI confirmed that the pipeline had indeed ruptured, as indicated by a meter long rip in the pipe. Pipe had been daylighted (soil above pipe blew away) by the effect of the release. Pipeline was operating at 1200 psi prior to the rupture.</p> <p>TNPI was planning to work throughout the evening and to cutout an 8 meter section and replace this section in the morning of Dec 8th and return the pipeline to operation later that day.</p> <p>The TSB was on site during the excavation and cut out of the failed section.</p> <p>Preliminary analysis indicates that there may have been third party damage to the pipe, which could have lead to a fatigue-type failure.</p> <p>The TSB is sending the pipe to its lab where a full metallurgical examination will be done.</p> <p>At the time of reporting, the suspected cause was unconfirmed.</p> <p>TransNorthern has spoken to the nearby landowners and the other residents around the spill to let them know what was going on.</p> <p>As at 9:00 MST Dec 9, 2002, an 8 meter section of pipe had been replaced. All welds were xrayed and passed.</p> <p>Pipe was freeflowing since the evening of Dec 8th, using only the booster pumps at the Montreal Shell refinery. Intent is to push any air in the line out at Cornwall (using a vent located there). Later in the day of Dec 9th, TNPI plans to increase pressure to 1000 psi.</p> <p>TNPI has booms and straw at 1.3 km and 2.5 km downstream of a small creek that captured some of the spill. As at 9:00 Dec 9th, there was no sheen at the 2.5 km location.</p> <p>Pipe was installed in 1952</p> <p>WT = 713 mm</p> <p>Coal tar coating, fibreglass belt reinforcement, and "craft" paper.</p> <p>Rupture location is approximately 3 meters from girth weld</p> <p>ERW at 1:00 position.</p> <p>Crack/rupture at 3:00 position.</p> <p>Flat area (3rd party damage) approximately 1.5 m long from 12:30 position to 5:30 position.</p>



2002-053	<p>On 16 Dec 2002, at approximately 16:20 MST, the floating roof on a tank at the TransMountain Pipelines Sumas facility located in Abbotsford BC, failed. At the time of reporting 1.5 m<sup>3</sup> of crude oil was reported to have been released from the tank into the adjacent spillway (secondary containment bermed area around tanks) .</p> <p>The tank feed was closed and isolated at 18:50 Dec 16th. Clean up and repairs were reported to be initiated as of Dec 16th.</p> <p>No injuries reported.</p> <p>No significant environmental impact other than that by the released product contained in the surrounding bermed area.</p> <p>TMPL reported at 14:00 MST Dec that the spill volume was closer to 10M<sup>3</sup>. and that vacuum trucks captured most of the product released.</p> <p>The failed roof was dismantled, removed from the tank, and replaced with another floating roof.</p> <p>Terasen conducted a detailed investigation of the roof failure including:</p> <ul style="list-style-type: none"> <li>" An independent failure analysis (by a tank engineering expert)</li> <li>" Component examination and metallurgical assessment by an independent consulting firm, and</li> <li>" Incident investigation by a multi-disciplined Terasen investigation team</li> </ul> <p>Terasen determined that the oil spill was caused by the structural failure of the floating roof. Degradation (corrosion) of key structural components (primarily the pontoon outer rim) in combination with the design of the roof and possibly the development of excessive rim loads or unbalanced loads (from the roof drain assembly) appear to have led to the development of a buckle through one pontoon. The buckle resulted in successive flooding of adjacent pontoons, allowing oil onto the roof deck and subsequently into the roof drain piping. From the roof drain piping oil was able to flow into the tank bay.</p> <p>The tank had been in service for 45 years and has undergone routine maintenance over its life and, most recently, an out-of-service inspection and repair in 1997.</p>
2002-055	<p>Investigation concurrent with 9700-A000-1-42. Large gas leak occurred from the 2" load &amp; purge (pressure up) line on train B of the de/re facility. This incident was discovered during investigation of the 18 October 2005 occurrence on train A.</p>
2003-002	<p>At approximately 20:30 hours on 27 January, 2003, DEGT employee installed blinds on the sulphrean condenser ("the vessel") and opened the unit to atmosphere to cool and prepare it for maintenance. In order to open the unit, DEGT employees opened the vessel's manway to allow air into the vessel to assist its cool down. However, the steam to the vessel's rundown line jacket had been left in service, which kept the residual sulphur in the vessel molten and subject to combustion with the introduction of oxygen. After the vessel's manway was opened, air was introduced into it via a natural draft and the molten sulphur ignited. The DEGT nightshift board operator received a sulphrean condenser high temperature alarm. The unit operator was called to investigate the cause of the alarm and detected sulphur dioxide (SO<sub>2</sub>) in the blower building. The unit operator determined the source of the SO<sub>2</sub>, and extinguished the fire by closing the regen blower suction valve which is connected to the vessel, isolating the steam tracing to the rundown and placing a steam hose in the manway. It took approximately four hours to extinguish the fire. An estimated 0.2 m<sup>3</sup> of SO<sub>2</sub> was released.</p>
2003-003	<p>The incident occurred on Wednesday, 12 February at 11:55 MDT at the McMahon gas plant (Taylor, BC). The acid gas flare stack pilot light at the gas plant went out and was out for approximately 1 hour before the pilot light was relit. During this period approximately 236 kg of H<sub>2</sub>S was released to the atmosphere. Duke received no complaints from the public. Duke did not notify the police of the incident.</p>

2003-005	<p>On 24 February 2003 (8:37 am MST), at the Foothills Monchy Compressor Station (#394), a solenoid on the #1 blowdown valve failed and caused the valve to open venting natural gas to atmosphere (volume unknown). This tripped the downstream low pressure shutoff device and closed the mainline valve. Company personnel replaced the solenoid and tried to close the valve, the operator was moving but the valve was not. Out of service for approximately 6 hours.</p> <p>The incident was reported to the TSB by [REDACTED] of TransCanada (on behalf of Foothills) on 25 February 2003.</p> <p>Staff contacted [REDACTED] for confirmation and further clarification on 26 February 2003, see Record of Conversation under "Action Details" tab.</p>
2003-006	<p>RE: Fire on the D2 converter of the sulphur train A on 1 March, 2003 at the McMahon gas plant located in Taylor B.C. The gas plant is owned and operated by Westcoast Energy Inc doing business as Duke Energy Gas Transmission (DEGT).</p> <p>At approximately 02:30 hours on 1 March, 2003, during a routine operation inspection, a DEGT Unit Operator discovered a small sulphur fire on top of the D2 converter of the A sulphur train. The sulphur fire was extinguished and reported to the control room by the Unit Operator. The sulphur was cleaned up and the insulation on the D2 converter was replaced with new material. The cladding that covered the converter's insulation was also replaced with new metal cladding.</p>
2003-009	<p>The following incident was reported by Mr. [REDACTED] of Duke Energy (formerly Westcoast Energy Inc.) to the TSB at 13:15 hours E.S.T. on 18th March 2003 and the TSB (Roger Hornsby) then notified the NEB at 11:30 hours E.S.T. the same day.</p> <p>Sweet gas was found to be leaking from a cracked gasket on a 24 inch inlet elbow of a dehydrator at the Ft. Nelson Gas Plant. The leaked was finally shut off at 18:00 hours P.S.T. (2 hours after it occurred) and was repaired by midnight. The volume of gas released is estimated to be 3500 standard cubic feet.</p>
2003-010	<p>Ken Miller of the TSB phoned the incident in at 1:34 pm MST.</p> <p>The incident occurred at Duke Energy's Booster Station 19, about 90 km east of Nelson, BC. The incident was discovered at 9:45 PST 21 March. A container was discovered empty of Kontol (a rust inhibitor) MSDS K0405 UN1993 Hazard Class 3. The Kontos was mixed with a small amount of diesel fuel. At the time, Duke believed that approximately 1000 gallons had been spilled. Duke's area supervisor was responding by helicopter to assess the site. There were no injuries.</p> <p>The incident was reported by [REDACTED] of Duke Energy [REDACTED] has a call in to [REDACTED] to get further details regarding the incident.</p>
2003-010	<p>Ken Miller of the TSB phoned the incident in at 1:34 pm MST.</p> <p>The incident occurred at Duke Energy's Booster Station 19, about 90 km east of Nelson, BC. The incident was discovered at 9:45 PST 21 March. A container was discovered empty of Kontol (a rust inhibitor) MSDS K0405 UN1993 Hazard Class 3. The Kontos was mixed with a small amount of diesel fuel. At the time, Duke believed that approximately 1000 gallons had been spilled. Duke's area supervisor was responding by helicopter to assess the site. There were no injuries.</p> <p>The incident was reported by [REDACTED] of Duke Energy [REDACTED] has a call in to [REDACTED] to get further details regarding the incident.</p>



2003-011	<p>At approximately 20:00 hours on 28 March, 2003 the Control Room Operator at the McMahon Gas Plant noted a potential problem in the Merox product treating unit and directed the Unit Operator to go investigate. The Unit Operator determined that there was a leaking pipe thread on a 2.54 cm (one inch) diameter pipe that routes "off gas" from the Merox Product Treating unit to the Merox off gas incinerator. Upon further investigation it was discovered that pipe thread had incurred significant corrosion that caused it to leak.</p> <p>The duration of the leak was from 20:00 on 28 March until 05:00 on 29 March for a total of 9 hours. The release rate was estimated to be approximately 5 cubic feet per minute for a total estimated release of approximately 2,700 cubic feet. The composition of the release was determined to be approximately 86% Nitrogen vapour and 14% hydrocarbon vapours (ethane, propane, butanes, and pentanes). In addition it is known that there were traces of sulphur mercaptan vapours released, however the level was not measurable and is estimated to be well below 0.01%.</p> <p>Mercaptan odours were evident in the immediate area, but were not noticeable outside the operating unit. The volume worked out to be 76.5 cubic meter of 14% hydrocarbon or 10.71 cubic meter of hydrocarbon.</p> <p>Mercaptan was extremely low and contained in close proximity to its area of release and no complaints were received.</p> <p>Merox spill 28 March, 2003 at McMahon Gas Plant located in Taylor B.C. The gas plant is owned and operated by Westcoast Energy Inc doing business as Duke Energy Gas Transmission (DEGT).</p>
2003-012	<p>Sequence of events</p> <p>On March 17th, 2003 the vessel was functioning normally when the internal water float internal dropped from its normal reading of about 16% to about 1%. The operator checked the vessel's water level valve and noted gas blowby on the water outlet valve LV 1132 leading the operator to conclude that vessel was empty. On March 19, 2003 LV 1132A was blocked in as the operators believed we had gas blowby on the separator vessel and the upstream valve (LV 1130B) was also blocked in to prevent gas blowby on the upstream regeneration drum. On March 19, 2003 the valves LV 1132A &amp; LV 1130B were opened for a regeneration cycle and then blocked in during standby. On March 20, 2003 the nightshift operator investigated problems with level indication and believed vessel was full of liquid and that water may have been pushed into the downstream flare knock out drum. The operator manually drained D-1132 vessel to the water storage tank and contacted the Gas Plant Lead for notification of a potential incident. The Gas Plant Lead assessed the risk potential of the situation and instructed operator to remove the equipment from service by isolating the hydrocarbon separator D-1132 and divert all regen fluids to the Glycol Flash Drum D-1010 until further notice and investigation. This was immediately done by the operator.</p> <p>On March 24th, 2003 the D-1132 was opened for inspection and it noted that both the water float and hydrocarbon float had collapsed and that the 0 to 1600 Kpa pressure gauges were reading 200 Kpa while at atmospheric pressure.</p> <p>Regulatory and Environment Supervisor, I</p>

2003-013	<p>A tractor was hauling a fuel trailer up a hill when the tractor spun out, then stalled. Both vehicles slid down the hill and subsequently rolled. Two workers were thrown out of the tractor and injured as a result. Staff determined that this incident is reportable due to the severity of the injuries sustained by one of the workers.</p> <p>s.19(1)</p>
2003-014	<p>██████████ System Superintendant for Plains Marketing (██████████) contacted the NEB on April 21, to report a crude oil leak on their Wascana Pipeline, located at the Regina Pump Station.</p> <p>On April 17, 2003, 7 cubic meters (revised to 4.89) of Flosterton Crude Oil (from the South Saskatchewan Pipeline) was released from the pipeline as a result of a nipple failure. All product released was contained on site. Plains Marketing control centre noted an anomaly in pressures. The leak was investigated and was subsequently shut in via the control centre.</p> <p>There were no injuries. All product was contained within station property.</p> <p>Spilled product has collected with vacuum trucks. Residual product in the soil was being scaped up at time of reporting and was scheduled to be hauled off site for hazardous disposal.</p> <p>Cause of the nipple failure has been attributed to excessive vibration combined with inadequately supported piping configuration.</p> <p>Plains Marketing plans to rework the piping configuration and supports to prevent reoccurrence.</p>
2003-015 s.19(1)	<p>██████████ of Enbridge pipelines reported a trace release of NGL from the Glenavon pump station MP 504.██████████ (70 km S.E. of Regina) to the TSB at 20:10. Edmonton Control received a gas alarm and the unit went down. Edmonton Control dispatched a local representative to the site to isolate the unit. It was discovered that a pump flush line had a leaking fitting. Repairs will be completed the morning of 30 April 2003. Enbridge stated that there was no danger to the public.</p> <p>s.16(2)</p>
2003-016	<p>At approximately 5:00 am MCT (local time) on May 5, 2003 Alliance pipeline Ltd. received a gas detection alarm from the Windfall Compressor Station (located at KP 338.██████████ - ██████████ in the Unit #1 building. Unit #1 was then shutdown and Unit #3 was started up. A technician was dispatched to the site. Upon responding to site the technician blew down the Unit #1 piping and conducted a visual inspection. It appears that a crack, approximately 8 to 11 inches in length (20 to 28 cm) developed in the 36-inch pipe in the vicinity of a 2-inch weld-o-let. The 2 inch line is used to pressurize the compress case during unit start-up. Allaince is now in the process of removing the 36-inch diameter spool piece that contains the suspected crack for further investigation. A more formal report will be prepared once the investigation is completed.</p> <p>s.16(2)</p>
2003-018	<p>RE: Westcoast Energy Inc doing business as Duke Energy Gas Transmission (DEGT) grass fire outside fence at NE corner 18 May 2003 at Sikanni Plant.</p> <p>While the Sikanni Plant Operator was on a routine Plant Site inspection he discovered a fire burning in the grass on the outside of the fence at the NE corner of the Sikanni Plant site. The Plant Operator got a 20 pound ansul fire extinguisher and discharged the extinguisher on the grasss fire. Since the fire was not completely extinguished the Plant operator went for another extinguisher and discharged it also on the grass fire. A field operator saw the smoke and came to assist in extinguishing the grass fire with a shovel.</p> <p>The fire was extinguished within approximately 40 minutes and it covered a grassy area of approximately 74 yards X 50 yards. The grass that ignited was previous year's growth of approximately 4 inches in length.</p>



2003-019	<p>RE: Westcoast Energy Inc doing business as Duke Energy Gas Transmission (DEGT) grass fire outside flare pit 21 May 2003 at Fort Nelson Gas Plant (FNGP).</p> <p>At approximately 16:15 on 21 May, 2003 a DEGT crew was carrying out a pigging operation on the 24 inch Beaver River Pipeline when a large amount of liquids arrived at Booster Station 12 (BS-12), which caused the scrubber at the station to blow down to the flare pit at the FNGP. The flare created by the burning liquid hydrocarbons left the pit area and went into a patch of grass behind the pit. The wind then carried the fire through the grass and into the brush line to the north of the flare pit. Approximately eight plant personnel were called to extinguish the grass fire. The grass fire was almost immediately put out via conventional fire fighting procedures, but it was decided that the brush fire required a helicopter to drop water on to the area. The fire was visibly extinguished by around 19:00 hours on 21 May 2003 after the water drop by the helicopter. The next morning a fire watch found some smouldering hot spots in the brush and the helicopter was brought back to drop water on the hot spots. The area impacted by the fire was approximately 150 X 100 feet.</p>
2003-020  s.19(1)	<p>██████ of Duke Energy reported that on 23 May at 12:40 PDT, after the inspection of a scrubber at Station 1 at the Taylor Complex, the station was being placed back into operation and was re-pressurized to 650 psi when a gasket failed. The failure resulted in the release of approximately 44.21 mscf of sweet natural gas. Duke Energy stated that the failed gasket may be attributed to the installation of an incorrect gasket. The maintenance personnel shut down the scrubber and de-pressurized the station through normal procedures. They then proceeded to install a correct gasket and the station was re-pressurized and placed back into service.</p> <p>Duke Energy provided an update to the incident and clarified that the failed gasket was not attributed to the installation of an incorrect gasket.</p> <p>UPDATE:</p> <p>On 23 May at 14:30 PST, a Duke Energy operations crew was placing Compressor Station 1 turbine inlet scrubber located within the Duke Energy Taylor Complex at Mile 35.██ of the Alaska Highway in Taylor, BC. back into service after the completion of an internal inspection of the scrubber. The operator was re-pressurizing the turbine piping in 100 psig increments and checking for leaks at each stage of pressurizing. The 30"x 600 Scrubber outlet flange gasket failed when the pressure reached approximately 650 psig. The failure resulted in the release of approximately 44.21 mscf of sweet natural gas. The operator immediately shut in the purge gas supply and depressurized the scrubber and all associated piping to allow maintenance personnel to repair or replace the failed gasket. Maintenance personnel replaced the Durabla gasket with a Flex-o-talic gasket. Once the gasket was replaced, the station was restored to service.</p> <p>Duke Energy advised Board staff that both gaskets (Durabla and Flex-o-talic) were ansi 600# rated and both were deemed to be suitable for the application in which they were used. The gasket that failed was Durabla 600#, and was/is not considered to be an incorrect gasket for this application. Further, Duke Energy advised Board staff that all work was completed by a qualified pipe fitter and helper and proper torque procedures were followed. Duke indicated that they had provided company operations the directive to ensure that proper torque procedures are to be followed when installing gaskets.</p> <p>Duke indicated that when flange gaskets are removed, they are always replaced with new gaskets. In this case, the Durabla gasket was replaced with a Flex-o-talic gasket. To prevent reoccurrence, it has been recommended by Duke to only use Flex-o-talic gaskets on high pressure gas flanges in the future. Further, Duke indicated that there is a Duke directive to ensure that proper torque procedures are to be followed when installing gaskets.</p> <p style="text-align: center;">s.16(2)</p>

2003-021	<p>██████████ of Duke Energy reported a fire to the TSB on 4 June at 20:00 MDT. The TSB reported the fire to Joe Paviglianiti on the incident cell phone at 20:08 MDT. The fire occurred at the Clarke Lake facilities, 30 miles east of Ft. Nelson at 11:00 MDT. ██████ stated that staff went to Clarke Lake to pull a pig. After departing they received a call informing them of a fire. Duke Energy staff went back to the site and had not yet re-contacted the Ft. Nelson Gas Plant. ██████ stated that the fire had been extinguished.</p> <p>██████████ indicated the staff were completing the pigging run at the time of his report. ██████ also stated that when Duke staff were pulling the pig, Petro Canada was flaring at an adjacent site. Information on the cause, size and material burned is unavailable at this time.</p>
2003-022	<p>Duke Energy employees were tasked with shipping a pig at the pig launcher at MP 101 (near the Village of Wonowon, BC), when they noticed the sound of gas whistling from the Ventus Gas Actuator control panel. On closer inspection, the employees noticed a small leak of gas emanating from a 3/8 inch steel plug on the control panel. Employees turned the powergas off, thereby isolating the actuator and panel, vented any remaining gas to the flare stack, and then replaced the plug with a new one.</p> <p>No injuries or significant environmental impact.</p> <p>A trace amount of sour gas was released to atmosphere (volume and concentration unknown at time of reporting)</p> <p>Reported to TSB by ██████████ of Duke Energy ██████████ s.19(1)</p>
2003-023	<p>TCPL internal incident # IIT133311</p> <p>A boiler expansion tank was being photographed when the flash from a disposable camera caused a flash fire to occur burning the photographers arms under his Nomex coveralls. The expansion tank normally contains 50/50 water and glycol mixture and had 1.5 inches of residual liquids in the bladder. The photographer was taken to the hospital where he was treated for 1st and 2nd degree burns to his arms and released. TCPL is investigating the source of the combustible mixture.</p>
2003-025	<p>Enbridge received a gas alarm at the control centre. Control shut down and isolated the station. The NGL release was contained within a building and caused by an instrumentation line failure. Police had been called. There was a reported 0.1 cubic meters of NGL released.</p>
2003-026	<p>RE: Westcoast Energy Inc doing business as Duke Energy Gas Transmission (DEGT) bush fire at flare site at GPS coordinates: ██████████ North ██████████ West on Sahtaneh Pipeline on 27 June, 2003.</p> <p>At approximately 08:30 PST on 27 June, 2003 a group of DEGT employees commenced the blow down of a 19.5 kilometre section of the 24-inch Sahtaneh Pipeline. De-pressuring of the pipeline was required in order to perform scheduled maintenance on the pipeline during the Fort Nelson Gas Plant outage.</p> <p>In the planning stage for the maintenance work and as a precautionary measure DEGT decided that during the gas flaring a crew would be placed on site equipped with a 2-inch water pump, fire axes, shovels and backpack fire extinguishers. A helicopter equipped with a 150 gallon water bucket was also on site to control any unintended ground fires. Two additional helicopters equipped with water buckets were also put on standby within 10 minutes travel time of the site.</p> <p>The brush line is approximately 50 to 75 meters from the flare point and consists primarily of black spruce, muskeg and swamp. Note that this flare site was blackened in January 2003.</p> <p>At approximately 16:30 PST, a strong gust of wind blew the flame from the flare towards the bush line and ignited some brush. The on site DEGT employees and helicopter instantly responded to the fire which was contained to an area of approximately one acre. The two stand-by helicopters were also called to respond to the fire. The three helicopters and ground crew extinguished the fire in 20 to 30 minutes. The ground crew extinguished the hot spots within three hours. The DEGT ground crew remained on the site until 22:00 PST to monitor for hot spots. Helicopter flyover monitoring of the site continued on a daily basis until 6 July.</p>

s.16(2)



2003-028	Duke Energy Official reported a gas detector alarm had sounded at Compressor Station 4A near Summit Lake. The station had undertaken an emergency shutdown. Inspection by officials revealed the natural gas had been leaking to atmosphere from a nipple that had broken on the discharge pipe. Repairs commenced with no injuries reported.
2003-029	<p>On 26 June 2003, Devon Canada employees arrived at Snowfall Creek Meter station (on the Kahntah Sales Gas Pipeline) to calibrate the meters when they noticed a sweet natural gas leak emanating from a failed insulating gasket. The leak was immediately reported to Kahntah Operations team. Maintenance crew was immediately dispatched to the site to investigate and repair the leak. The area was isolated and the piping was allowed to bleed down. The crew attempted to tighten the flanges to get the gasket to seal, however, were unsuccessful. A Flexitallic spiral-wound gasket was installed in place of the insulated gasket as a temporary measure to stop the leak.</p> <p>There were no injuries.</p> <p>Except for the release of sweet natural gas to the atmosphere, no environmental impacts were noted.</p> <p>Incident was reported to the NEB on July 09th by a Mr [REDACTED] of Devon Canada. [REDACTED] indicated that he contacted the NEB several times since June 26th in an attempt to report this incident, however, failed to get directed to personnel within the Operations Compliance team. On July 09th, [REDACTED] was re-directed to Leo Jansen of the Operations Compliance Team. Leo took the information and advised [REDACTED] of the One Window Incident Reporting approach through the TSB and provided [REDACTED] the TSB's reporting criteria and phone number.</p> <p>For this incident, the NEB will contact TSB to advise of the incident details etc.</p> <p>Of note is that the pipeline is owned by Alta Gas, however is operated by Devon Canada.</p> <p>An additional note to consider is that in July of 2001, an insulating gasket failure was the cause of a fire at the South Wapiti Gas Plant near Grande Prairie. According to Devon's incident report, the only thing that prevented this incident from becoming a repeat of the Wapiti fire, was the absence of an ignition source. Devon indicated that the helicopter used by the meter proving crew to access the site may have ignited the escaping gas, however the crew suspected problems in the area, so approached the site from the upwind direction.</p> <p style="text-align: right;">s.19(1)</p>
2003-031	<p>Distance piece vent off the rod seals was struck by lightning which resulted in a fire. The compressor unit shut down.</p> <p>The incident was reported to Ron Clarke at the TSB.</p>
2003-034	<p>Roger Hornsy of the TSB called stating that Ken (last name not obtained by TSB) of Duke Energy called stating that a small fire had occurred at Westcoast's Compressor Station No. 1 in Taylor B.C. A BS1 40 volt Control Breaker had shorted and a small fire resulted that was immediately extinguished. The incident did not result in a shutdown of the compressor station nor did it cause an interruption in service of the pipeline.</p>

2003-035	<p>RE: Westcoast Energy Inc doing business as Duke Energy Gas Transmission (DEGT) fire at 16" Pesh Loop Receiving flare site, NTS coordinates: c-4-K/94-P-7 on July 31st through August 3rd, 2003.</p> <p>On Thursday 31 July 2003, company personnel began a pig sending and receiving operation. The pig receiving area was at a location referred to as "Helmet Central". This is where the North Helmet 16 inch pipeline originates along with the 16 inch Peche Loop and a flare stack is located.</p> <p>As a result of the pigging operation, a massive hydrate and liquid slug built up in front of the pig. The hydraulics of the line being pigged were such that the gas flow behind the pig could not push the pig up several hills into the receiving barrel at "Helmet Central", and the pig became stuck. Subsequently, the producers pipelines pressure increased to the point of their shut down limits. This resulted in the producers facilities to shut down. The only method to get the pig into the receiving barrel was to flare off the gases and liquids via the flare stack at "Helmet Central". This was done over a 4 day period from 31 July and 1, 2, and 3 of August. Flaring resulted in excess liquids and hydrates being pushed up the flare stack and spraying from the top of it. Ignited liquids landed on the ground resulting in small fires. This happened numerous times during the 4 days. Company practice requires a standby helicopter equipped with fire fighting equipment in the event that the flaring result in a fire. When the fires occurred, personnel would extinguish many fires by shoveling dirt onto them. The helicopter bucketed large amounts of water around the area to keep it wet and thus preventing the fires from spreading. The helicopter could make return water trips to the site within one minute. The pig was finally received at the receiving barrel at approximately 1 p.m. local time on Sunday 3rd August 2003.</p> <p>It was later determined that the fires did migrate outside the boundaries of the flare site at the receiving barrel. The Westcoast flare site is 0.836 hectares. It has been estimated that the total burn area was approximately 1 hectare in size. Virtually all of the area burned outside of the Westcoast flare site (approximately 0.164 ha) was composed of muskeg and weeds.</p>
2003-038	<p>An alarm was noted by the Edmonton Control Center (ECC) at 10:47 MST on 31 Aug 2003, at the Glenboro Pump Station Line 1. The ECC followed Enbridge procedures and personnel were dispatched to the station. Upon arriving on the site it was noted that evidence of a trace amount of NGL had been released from pump unit 1U1 seal. The unit was isolated and remained locked out until repairs could be initiated.</p> <p>The pump was restored to service on Sept 24th, 2003 in order to identify the cause of the NGL release. After pumping for 24 hours on NGL and OSA batches, there was no evidence of visible leakage anywhere on the pump. Hence, Enbridge was unable to determine the cause for the NGL release which occurred on 31 Aug 2003.</p> <p>Enbridge monitored pump unit 1U1 for the following week to verify the integrity of the pump seals under normal operating conditions. No further leaks were reported.</p> <p>Corrective Measures:</p> <p>As Enbridge was unable to induce the pump to leak again while under investigation, they were unable to establish what caused the original trace leak of 31 Aug 2003, and were not able to implement any corrective measures to prevent reoccurrence.</p>
2003-039	<p>on 5 Sept 2003 around 18:00 Hrs MST While the unit was shut down an operator walking the area found a small corrosion leak from the merox unit to incinerator line leaking hydrocarbon being an unintended gas release. Quantity being determined.</p>
2003-040	<p>██████████ called Henri Simoneau for a heads up on an incident he was reporting to TSB.. which happened 5 Sept 2003 around 4:00 PM where they found a bypass valve on PCV to flare on the reflux line to sulphur trains was leaking H2S to flare. As it was unintended release of approx 80% H2S he was calling it in. ██████████ later called around 7:00 PM to inform they had been successful with greasing etc in stopping the flow through the valve.</p>



2003-041	On August 26th, a minor leak was found on the Bettis actuator assembly for MLBV 9-2. An area landowner had called into Alliance Gas Control to report a natural gas smell at that location, and a follow-up site visit confirmed the small leak. Specifically, there was a small-scale leak from the filter housing on the NPS 3/8 tubing. The attending Alliance field representative proceeded to put the block valve in manual and blocked the power gas. The O-ring in the filter element was replaced, and the actuator assembly was then returned to service.
2003-042	An overpressure resulted in an emergency shut down on line #2 at the Regina Terminal. A flange gasket burst resulting in a minimal release (.08 cubic metres) of crude oil which was contained. Enbridge officials responded and will be conducting repairs to the flange.
2003-043	Enbridge representative, [REDACTED], reported an incident to Don Mustard of the TSB on 27 September 2003 at 16:10 EDT. The incident occurred at 11:30 CDT at the Enbridge Regina Terminal and consisted of the release of a trace amount of NGL from a small fitting on the 1U1 pump on Line 1 at MP 437. The release of NGL did trigger a gas alarm and resulted in an emergency shut down of the Line. Enbridge staff isolated the unit at 12:50 CDT and then restored flow in the Line. At the time of the report the Unit was still down pending confirmation of the location of the leak and final repair.
2003-044	On 4 July 2003 at McMahon Gas Plant during the afternoon a maintenance worker attempted to replace a power meter on an internal piece of equipment. The UPS time on the power meter was surpassed and consequently caused a trip causing a power outage of the entire complex. As a result of the air system shutting down, the control of valves failed safe opening some to flow / drain to flare where the excess flaring caused the vegetation to ignite..
2003-047	A contract employee had his finger pinched between a compressor piston and a connecting rod. The finger was amputated. The incident was reported by [REDACTED]
2003-048	Description - The Estlin emergency shut-down (ESD) was unintentionally activated at the identified time, and the station yard piping was blown down. Alliance personnel arrived on site approximately one hour later at about 06:30 h CDT and investigated the situation. A loose wire was found at one of the ESD switches (Switch ESD-0917), and this was identified as the apparent cause of the unintentional ESD trip. After the wire was properly set, the yard piping was re-pressurized and the single compressor unit at the station was re-started. Normal operations were established, and there were no further operating anomalies.
2003-049	ON NOV 11TH, ENBRIDGE PIPELINE PROVIDE A LATE REPORTING OF A FAILURE OF A MECHICAL SEAL ON PIPE UNIT 1.4 AT EDMONTON TERMINAL WHICH OCCURRED ON NOV 09 AT 14:30 MST. ENBRIDGE REPORTED THAT THE PUMP IMMEDIATELY SHUT DOWN AND WAS AUTOMATICALLY ISOLATED. SLIGHT VAPORS OF NGL CAME OUT OF THE SEAL. THE PUMP WAS FLUSHED AND THE PUMP WILL BE RETURNED TO SERVICE AFTER THE REPLACEMENT OF THE SEAL. THERE WERE NO INJURIES NOR WAS THERE ANY SIGNIFICANT ENVIRONMENTAL IMPACT AS A RESULT OF THE RELEASE.

2003-050	<p>Duke Energy reported (to TSB) a leak of approximately 30 gallons (115 litres) of lean oil (aka #1 Stone Oil) as a result of a pinhole leak which had developed in a 2 inch transfer line to the Operation Unit. The spill covered an area 15' x15' within the plant site. The spill posed no risk to the public and was completely contained within the facility in gravel and dirt. Duke immediately brought in vacuum trucks to capture all spilled product and contaminated soil.</p> <p>Spill was reported by [REDACTED] Team Lead Operations Taylor Gas Plant: Duke Energy [REDACTED]</p> <p style="text-align: right;">s.19(1)</p>
2003-051	<p>On 24 Nov 2003, at approximately 17:00 MST, Duke Energy was in the process of cutting up a sulphur tank which had been decommissioned, when a (small) smoldering fire developed. Hydraulic sheers had been used to cut the tank. Snuffing steam hoses were connected and used to extinguished the fire. Duke set up an incident command post for the incident, and initiated the Duke Emergency Response Team, largely to monitor and assess the situation on site. There were no injuries nor was there any significant environmental impact as a result of the incident. Duke noted higher than normal SO2 levels in the area of the fire, so appropriate PPE was donned for the response activities.</p> <p>The tank was put on a Nitrogen purge, and expects to remain so until Duke has completed a procedural review and modification to address the conditions involved in decommissioning the tank. Duke indicated that they expect to return to cutting up the tank on 26 Nov 2003.</p> <p>Incident was reported to TSB by [REDACTED] of Duke Energy Taylor Gas Plant [REDACTED]</p> <p style="text-align: right;">s.19(1)</p>
2003-052	<p>On 02 Nov 2003, the Leak Detection system on Souris Valley Pipeline Limited's carbon dioxide pipeline provided an erroneous alarm resulting in the temporary interruption of service while the alarm was investigated.</p> <p>In OPR 89, Section 51f of Certificate CC-1, requires a company to notify the NEB of any interruption in the operation of the pipeline.</p> <p>This incident is reportable under the conditions included in Certificate CC-1</p>
2003-055	<p>ENBRIDGE REPORTED A RELEASE OF NGL FROM A VALVE ON A DRAIN LINE THAT OCCURRED ON DEC 02 2003 AT APPROXIMATELY 1430 MST AT THE EDMONTON TERMINAL. THE VALVE WAS REPACKED AND ENBRIDGE WILL MONITOR THE VALVE CLOSELY UNTIL PARTS ARE AVAILABLE TO REPLACE THE VALVE.</p> <p>NO INJURIES REPORTED.</p>
2003-056	<p>On 03 Dec 2003 at approximately 12:00 PST, during maintenance activities at Duke Energy's Fort Nelson Gas Plant, a leak occurred on the sulfur transfer line which feeds the Enersol Facility. Approximately 1 cubic meter of molten sulfur was released onto the ground. Duke Energy advised that once the sulfur is totally solidified, it will be collected and disposed of.</p> <p>Incident was reported to TSB on Dec 05th at approximately 19:00 MST by [REDACTED] Alternate contact is [REDACTED]</p> <p>[REDACTED]</p>

s.19(1)



2003-058	<p>At approximately 0500 MST there was a propane release at the WEI Taylor Gas Processing Complex - McMahon Plant. No injuries, no fire, and no significant environmental damage resulted. The situation is controlled and there is no immediate threat to public or occupational safety. No enquiries from the public were rec'd at the plant.</p> <p>A PSV lifted on a 3 inch propane "rundown" line. An estimated 185 bbl. ( 38 m3) of propane was released. While most of the propane vaporized, a pool of liquid formed in the vicinity. The release occurred at the tank farm area, which is bermed. The liquid was allowed to weather (evaporate). Incident Command was established, and their Emergency Response Team brought in. The district was notified, including the fire chief. Maintenance work was suspended and atmospheric monitoring was established surrounding the area.</p> <p>Initial investigation indicates that valving to the tank farm was not properly switched from one bank of bullets to the next. It appears that the PSV adequately relieved the pressure.</p>
2003-059	<p>ESTLIN EMERGENCY SHUTDOWN SYSTEM WAS UNINTENTIONALLY ACTIVATED BY A 3RD PARTY WHEN AN UNKNOWN PERSON BROKE INTO THE STATION ESCAPING FROM THE COLD. ALLIANCE PERSONNEL RESPONDED TO THE SITE AND RCMP WERE NOTIFIED AND DISPATCHED AN OFFICER TO ESTLIN. THE PERSON HAD SUSTAINED SERIOUS INJURIES AND WAS DETAINED FOR THE RCMP. INVESTIGATION BY COMPANY OFFICIALS REVEALED THE 3RD PARTY HAD ACCIDENTALLY PUSHED THE ESD BUTTON NOT KNOWING ITS PURPOSE.</p>
2003-060	<p>Duke Energy reported that at approximately 11:45 MST, on Dec 16th, 2003 at the Taylor Gas Plant, piles were being driven into the ground within the facility boundary, when seepage out of the frozen ground ignited. The fire was extinguished with a hand held extinguisher. At the time of reporting, Duke Energy personnel suspect that a trigger gas line for the ESD system was breached. The line is typically a 1.5 inch diameter pipeline. Duke Energy personnel are investigating to identify source of seepage. Duke has isolated the pipeline, which caused the pressure to drop.</p> <p>Incident was reported by [REDACTED] of Duke Energy [REDACTED]</p>
2003-061	<p>Packing leak, wear and tear, negligible amount of leakage. Reportable to TSB.</p> <p>Received a call from [REDACTED] of WEI [REDACTED] and also from Roger Hornby of TSB at approx. 11:00 AM confirming Bypass Valve Packing Leak(fugitive emission-very small) on Clarke Lake lateral pig receiving barrel. This is located approx 40 km east of Fort Nelson. WEI discovered this leak at approx 11:00 hrs 17 Dec 2003. The leak as been contained and is being routed to flare. (Box built to accumulate gases) Plans are in place to depressure 16" pipeline and repair valve next few days.</p>
2003-062	<p>The ESD system was unintentionally tripped with the same ESD switch at fault as in the incident which occurred 22 October 2003 (2003-048). Personnel found the wiring to be good and secure and attributed the incident to a faulty switch. The switch was subsequently replaced and found to have a broken part.</p>

2003-064	Numerous wet cuts prompted operations to drain the varsol tank to ensure there was no water in the tank that could contribute to the wet cuts. The gauger drained the varsol tank and removed the petcock to insert a hose to suck out any remaining liquid. As he attempted to insert the hose, a fire / flame shot out of the drain. The flame and varsol contacted the gauger's Nomex sleeve. The varsol carried to the sleeve with the flame and continued to burn on the gauger's Nomex sleeve. The gauger exited the lab and went to the snow covered ground and "stopped, dropped and rolled", to extinguish the flame on his Nomex sleeve. He re-entered the lab and extinguished the remaining fire. The direct cause of the fire is that the heating element was not de-energized and when the fluid level dropped below the element it continued to heat until enough vapors were present to ignite. Damage included a burned plastic tray, a few papers / tickets and the lab counter top has a burn through the laminate as rags that were sitting on the counter, burned and smoldered while the gauger was extinguishing the flames on his Nomex sleeve. This incident was not reported to Management immediately. When notified of the incident, Management investigated and confirmed incident with those involved.
2004-001	The Line 1 outboard pump mechanical seal failed. Pump taken out of service. Enough NGL was released to generate a gas warning, but not enough was released for a detector to measure quantity .
2004-002	On 25 January 2004, located at the Pine River Gas Plant in Chetwynd BC, Duke Energy experienced an overflow of approximately 11.86 cubic meters of Dowtherm (Ethylene Glycol). The product released as an overflow from the collecting area and was approximately 55% Ethylene Glycol), and 45 % water. All product was contained on the station property. The release occurred Jan 25th at approximately 2200 MST. Reported by [REDACTED] of Duke Energy at [REDACTED]
2004-004	At approximately 0300 PST, Duke employees at the Taylor Gas Plant, BC, noted a small sulphur fire within the E3A Condensor Sulphur viewing box. Duke employees extinguished the fire with water. There were no injuries, nor was there any significant environmental impact as a result of the incident. Duke suggested that the seal between the lid and the viewing pot was not closed, which allowed air to enter the pot. The combination of liquid sulphur and air resulted in a fire. Incident reported by [REDACTED] of Duke Energy [REDACTED]
2004-005	At approx. 9:30 am on (Feb. 19), approx 2 m3 of condensate was spilled. A Husky condensate truck was overfilled for 1 to 2 minutes, likely due to loader inattention. The loader shut off the pump. Clean up was initiated utilizing a vacuum truck and a steamer which were in the area. Hazco is removing the waste for disposal. Clean up will be completed today. The ground is frozen and the spill was contained within the site. No significant effect on safety or the environment is expected. DEGT is reviewing the incident and procedures in place. A DIR will follow. The spill was contained to the site and the ground was frozen
2004-006	On 26 Feb 2004 at approximately 0530 PST, a generator (#1403) at Duke Energy 's Pine River Gas Plant triggered a low voltage alarm. Operators checked the generator to discover a small fire around the generator. The cause of the fire is speculated as being due to a winding failure within the generator. Operators extinguished the fire with hand held extinguishers. There were no injuries and no significant environmental impacts. Reported by [REDACTED]



2004-007	A suspected fire occurred in the sump room at the sump pump. A plastic burning smell was detected and soot was discovered at the sump. The fire had self extinguished.
2004-009	At approximately 1500 CST, approximately 10 litres of NGL was released from a failed seal on pump unit #4. at Enbridge Pipelines Kerrobert, SK pump station. The unit was not operating at the time of seal failure. There were no injuries, and all product was contained within the station property. Incident was reported by [REDACTED] of Enbridge [REDACTED] s.19(1)
2004-010	Operations personnel dedtected a minor natural gas leak at MLBV 13-2 while removing snow at the site. The MLBV was put into manual and the leak was located and isolated. An NPS 3/4 to NPS 1/2 tubing adaptor on the poser gas riser had broke, and was proptly removed and replaced. Alliance estimated a minor amount of gas lost. Based on site observations, the adaptor broke due to the weight of settling snow.
2004-011	Enbridge detected a sheen on some water in a culvert on 15 April 2004. They removed the water and oil mixture and rechecked the culvert on 16 April and found an addition oil sheen. Enbridge then began hydrovacing the nearby 36 inch line and discovered a two inch fitting on the line was cracked. They discovered oil contaminated soil but no free oil. At this time, Enbridge has estimated a release of 10 barrels of oil. The area of contamination is approximately 10 to 15 metres from the fenceline and contained within the Cactus Lake Pump Station. Contaminated soil being excavated and transported to the bio-remediation facility at Kerrobert. Update to be provided today (21 April 2004). Reported to the TSB by [REDACTED] - Enbridge - [REDACTED] s.19(1)
2004-012	Alliance reported an unintentional release of sweet gas from a pressure relief valve on the down flow side of the Windfall Compressor Station. The pressure was reduced and the valve was re-set. The gas had been escaping for 43 minutes before the valve could be re-set. The valve has been replaced. s.16(2)
2004-015	At approximately 20:00 MST, on 04 May 2004, Duke Energy employees were preparing to receive a pig at the pigging barrel located at MP 17 [REDACTED] near the Jedney Compressor Station when the noted a crack on the weld on a 1" fitting located on the pigging barrel. The section of pipeline between the barrel and the flare line was immediately isolated. Based on the volume within this section of pipeline, the maximum volume of sour gas that was released to the atmosphere was estimated at 4300 SCF (or approximatley 150 cubic meters) . There were no injuries, no fire, no significant interruption in pipeline operation and no observable significant environmental impact. NEB staff followed up with Duke Energy the following day and were advised that repairs to the fitting were underway and expected to be completed within the day. At the time of the call, the pig was still in the pipeline however once repairs are complete the pigging operation is expected to resume, which includes pulling the pig into the barrel and subsequently removing the pig from the line. Duke Energy contact: [REDACTED] s.19(1)
2004-016	On 31 May 2004, during a routine site inspection at the Edmonton Terminal, Enbridge personnel noticed crude oil leaking from Booster pump #30. Booster pump #30 is located in a concrete vault along with 4 other pumps. Cleanup was initiated, using a vacuum truck and steam cleaners. It is estimated that all of the crude oil was recovered. A total of 5.06 m3 of oil was released as a result of this incident.

2004-017	<p>While using a jumping jack to compact clay around Manifold 207 at Enbridge's Cromer Terminal, the fuel line of the jumping jack caught fire. The fire was extinguished immediately and no injuries resulted.</p> <p>It is suspected that electrical wiring for a stop button may have either broken and punctured the adjacent fuel line or may have overheated and burned through the fuel line. The stop button was not functional and the equipment had not been removed from service.</p>
2004-018	<p>Sulfinol stain found on gravel next to "A" Surge Tank, within berm. Tank was inspected internally after the stain was noticed. Holes were found in the floor. Reportable or not (?) to be determined by company. Their environmental specialist ( ) will perform soil analysis to determine whether there is significant effect on environment. Surge tank "B" will be inspected as well to determine its condition , as a precautionary measure.</p> <p>DIR will be sent.</p>
2004-019	<p>An unplanned gas release occurred at the Windfall Compressor Station near Whitecourt, Alberta. At the time of the occurrence, the second compressor unit at the Windfall Compressor Station partially blew down due to an unexpected tripping of the emergency shutdown (ESD) system. The station was running with just Unit 2 at the time on the bypass piping (the station has three compressor units altogether, with two running at any one time during normal operations). The reason the ESD tripped was due to an uncontrolled venting signal. The Unit 3 station piping was already blown down but one of the valves was off its limits, therefore calling for a station ESD (which is what it is supposed to do in the logic). The logic was not designed to run with only Unit 2, so this was unforeseen. If Unit 3 had been on maintenance bypass, this also would not have happened. The pressure in the Unit 2 pipe and bypass pipe was about 9,300 kPa when the ESD was tripped, and Alliance personnel got it shut in at about 1,300 kPa.</p>
2004-020	<p>Roger Hornsby of the TSB called at 8:31 am. They received a call at 10:27 a.m. Eastern from ( ) at the PRGP ( ). At 4:00 am (Pacific) approximately 1000 litres of Sulfinol was released .</p> <p>After maintenance on the B process train, they were bringing it back on line. The Sulfinol solution went through a blocked valve and moved into the A processing train which was open to atmosphere and then escaped onto the ground. Vacuum trucks are in transit. All free liquid is contained.</p>
2004-022	<p>During a storm on Saturday, lightning struck a vent stack at the Beg-Jedney Booster Station and ignited purge gas. The fire was extinguished by WEI personnel using fire extinguishers. There was no property damage, product loss, or injury as a result of the incident.</p>
2004-023	<p>( ) (contractor) electrician was working at Glenboro Pump Station removing motor feed cables from inside an electrical cabinet when he made contact with live wires. The worker has been transported to the hospital. The site has been secured and Manitoba OH&amp;S is investigating.</p>

s.19(1)



2004-024	<p>During the morning of 14 July 2004, an Enbridge Norman Wells helicopter noted a release of crude oil at a manual valve site. The release seeped downwind of a cuvert pit located at the valve site on Line 21 at KP 529 [REDACTED].</p> <p>The 2 upstream valves were immediately closed by Enbridge personnel. The pressure in the line where the release is suspected to have initiated, was drawn down to facilitate investigation and repairs.</p> <p>An estimated 2000 litres of crude oil is reported to have been released, with the bulk of it accumulating in the culvert pit (dry well)</p> <p>There were no injuries as a result of this incident</p> <p>There does not appear to be any potential for the released product to enter any watercourses.</p> <p>Investigation and repairs are underway. At approximately 14:45 MDT, Enbridge advised that the culvert pit was being pumped out to facilitate the investigation.</p> <p>Incident was reported by [REDACTED], Manager of Enbridge NW. [REDACTED]</p>
2004-025	<p>IRAD TSB Incident File #9700-A000-1-40</p> <p>Westcoast Energy (Duke) Fort Nelson Gas Plant had a catastrophic failure on #9 steam turbine in the power plant. It is suspected that the main drive shaft of the turbine failed. No fuel was lost and no steam was lost. Holes were blown in the walls and the ceiling of the building due to flying debris. The stand-by power generator system was dissabled. The FNGP experienced a full plant shut down. All producers were shut in. No gas flow out of the gas plant. Force manjure status unknown at the time of reporting.</p> <p>No injuries or environmental damage reported. At no time was there a threat to the public.</p> <p>TSB is responding with an investigator and is deploying a metal materials specialist for turbines from the TSB in Ottawa. The TSB has given Westcoast permission to start up another unit to enable power generation so that the plant can be brought back on line.</p> <p>The NEB is deploying an investigator.</p>
2004-026	<p>[REDACTED] of Trans Gas (the federal entity is Many Islands Pipeline) reported a sweet natural gas leak on the Swan River pipeline at @9:30 pm (CST - Saskatchewan does not use daylight savings time).</p> <p>At about 4:30 pm today (July 21, 2004) a helicopter doing aerial survey noted a patch of dead vegetation in [REDACTED] Ground investigation and probing indicated the presence of natural gas and a small leak. The estimated volume reported to TSB was 1 cubic metre per hour. This is simply a guess. It is a very small leak.</p> <p>The leak is in agricultural land and is situated about 400 metres from the nearest dwelling. There are no serious hazards associated with this leak. The pipeline is NPS 6 (168.3 mm OD) and 3.2 mm wall thickness. The operating pressure is presently 430 psig. The pipeline was constructed under order XG-M029-24-2000. Our file number is 3400-M29-31.</p> <p>The leak is very close to the Manitoba border. The primary customer is an industrial facility in Manitoba.</p> <p>I spoke with [REDACTED] shortly after the leak was reported (I know [REDACTED] personally). They will be excavating the leak tomorrow and plan to either do a permanent repair using a steel pressure containment sleeve or a temporary repair using a PLIDCO bolt on sleeve tomorrow. He will email me when they know the cause but we both believe the leak is most likely at a girth weld (burn through and lack of fusion).</p> <p>Ken</p>
2004-027	<p>An employee, [REDACTED] was standing on the pig reciever, after having changed out a pipefitting. He lost his balance and fell to the ground, approximately 1.5 meters (5 ft.). Another employee noticed him on the ground and went to his aid. He found that Mr. [REDACTED] was conscious, but that he seemed disoriented. Mr. [REDACTED] was transported to the local hosipital where he was examined, kept overnight, and released in the morning. Mr. [REDACTED] suffered a sore shoulder, and company staff believe he may have suffered a temporary loss of conciousness.</p> <p>With the possibility that an employee may have suffered a loss of consciousness, this event is being considered an incident as defined.</p>

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2004-028	<p>██████████ of Westcoast phoned the TSB at 18:20 to report a suspected leak on the Grizzly Extension. A cathodic protection crew working in the area heard a leak. ██████████ phoned the TSB at 21:00 to confirm the leak, and the TSB then reported to the Board.</p> <p>The leak is at Kp 85. ██████████ on the 10" South Grizzly Pipeline south east of Tumbler Ridge. (Actually determined to be the 16" Grizzly Extension pipeline.) The South Grizzly is a 10" sour gas pipeline. Westcoast has isolated and depressurized the pipeline and set up a guard. There is a work camp 1 km away and the highway is 1/2 km away. The crew was 30 metres from the leak before they could get readings in the gas monitors. Repair crews will be sent in on 4 August 2004.</p>
2004-029	<p>██████████ call the TSB to report a sour gas leak on the 10" Southeast Helmet Pipeline. The pressure in the line has been reduced from 230 psi to 90 psi and that has effectively stopped the leak. Dig crews have been mobilized with the dig to commence this afternoon, using full H2S protocol. The exact location (chainage) of the leak is unknown at this time, but early indications are that the leak is around the 8.██████████ mile mark on the 10" Southeast Helmet.</p> <p>The pipeline is 2 1/2 to 3 hours up the highgrade into the Helmet field (north of Fort Nelson).</p>
2004-032	<p>A producer working in the area of the 8" Peggo tie-in to the 16" Pesh Loop noted a small leak and reported to gas control. The leak of sour gas is from the gasket of the tie-in line insulating kit. The line was isolated by 18:30 PDT with repairs scheduled for 2 September 2004.</p>
2004-033	<p>Ron Clark from TSB called at 9:00 hrs Sunday 12 Sept 2004 to report that ██████████ from DEGT PRGP had called in an incident which occurred Saturday night between 19:30 to 21:30 11th of Sept 2004. High Winds caused a swing arm on a Sulphur Tower to swing and hit a glycol jumper line. This cause a break and leak of approx 1900 litres of glycol spill. Spill was contained on site. This was also reported to Provincial Authorities. DEGT contact: ██████████</p> <p>There were NO injuries caused from this incident</p>
2004-034	<p>pin hole leak in tailgas line.</p>
2004-035	<p>A contractor, ██████████ of McCaw's Drilling rolled his ATV at a worksite (Duke Goodrich Re-injection Pipeline project). He fractured his forearm. This was reportable to the NEB, but it does not meet the reporting criteria of COHSR Part 15 - no ER/EE relationship.</p>
2004-037	<p>On 11 August 2004 at approximately 13:14 MDT, the Line 100-2 Discharge Valve limit switch failed causing three other valves in the station yard to cycle approximately six times each before personnel took over manual control. The gas released was not pipeline gas, but the power gas that drives the valves. The environmental impact of this gas release is related to greenhouse gas emissions to atmosphere. The incident resulted in a release of 0.04 e3m3 of natural gas. There were not injuries, impact to the environment, fire, interruption of reduction of service resulting from the incident. Upon record review, TCPL noted that the following incident had not been reported.</p> <p>This incident has been closed out without further investigation.</p>

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2004-038	<p>██████ of TCPL ██████ reported an uncontained release of natural gas which occurred on 22 Sept 04. (The time of his call was not reported but was estimated at 1pm EDT today)</p> <p>TCPL technicians arriving on site at the Elko tap in Elko, BC for routine maintenance found a gas beacon alarming at the building. The technicians found the LEL to be 18%. They opened the door to ventilate the building and the LEL subsequently dropped to 10%. A safety valve was found to be leaking.</p> <p>The technicians were scheduled to perform M36 maintenance on a catalytic heater. The heater was locked out until repairs to the safety valve were made.</p> <p>There were no related environmental concerns (except for the venting of natural gas), no interruption to service, no injuries and no fire resulting from this incident.</p> <p>There was no affect on safety or the environment from this leak.</p> <p>The fitting involved was a small regulator, no bigger than a regulator on a domestic hot water tank: the upstream regulator regulates pressure to 15 inches of water column.</p> <p>The leakage rate, and the total gas leakage was negligible.</p> <p>The building alarm and shut-down was activated at 10 % of LEL (lower explosive limit). The building is equipped with a gas detector which is set to alarm at 10% LEL. Annunciation of a high gas condition is provided by means of an outside beacon.</p> <p>The gas concentration in the building was not above the allowable level for entry, when the workers entered the building. The TransCanada Building Entry TOP requires personnel to test the environment within the building prior to entry. If the reading is between 10% and 40% LEL, personnel are instructed to ventilate the building, take continuous readings through a crack in the doorway or if so equipped, through a portal in the man door.</p> <p>The TOP instructs personnel that it is safe to enter the building if they measure a reading of less than 10% LEL, but to take continuous readings while investigating the source of the leak.</p>
2004-039	<p>While repressurizing MLV Section 63 to 66, personnel noticed natural gas leaking from the upstream blow-off riser. Upon closer inspection, the NPS-1 nipple was observed to be cracked. There was not ignition, impact to persons, service interruption or loss / impact to property. The volume of gas could not be measured. The riser was isolated to prevent any further release of gas.</p>
2004-042	<p>Two Westcoast personnel opened a valve to bring a pig into the receiving barrel. The vented gas pushed condensate that had accumulated in the flare line through the line and up the flare stack. The condensate ignited and splashed onto the gras in the area of the flare and ignited the vegetation. The helicopter, which was used to access the site, was fully equipped to bucket water on the fire. The pilot contacted another helicopter working in the area to assist. The workers also used a tracked backhoe which was available at the site to move earth and help extinguish the fire. Approximately 1 acre of grass and scrub burned, mostly contained to Westcoast property. The workers dumped excess amounts of water on the area to ensure there was not residual fire as this was a muskeg area and fire would be difficult to extinguish if not immediately controlled.</p> <p>The sky was clear; +10c; winds from the SW and gusty. Minimal environmental impact reported.</p>
2004-045	<p>Ron Clerk from TSB called to inform NEB of a dowtherm glycol spill incident reported by ██████ of Duke Energy at Pine River Gas Plant at 20:45 18 Oct 2004. An operator was operating a valve on the heat tracing system on Combustion Air blower A when bonnet of valve came apart and operator was sprayed with glycol. Employee was immediately washed. NO medical issue resulted from this incident. Volume was calculated at approx 3.55 m3. Piping was also immediately isolated and depressured. ██████ can be reached at ██████</p>
2004-047	<p>A glycol loop in the process section of the plant had a valve that was seized in the closed position. WEI staff were attempting to tie into a different supply line to feed the loop. During the work - when they cut into the seized loop - glycol was released. The estimated release amount is 1000 litres of glycol and the leak was contained. As of the morning of 27 October 2004, clean-up was complete.</p>

2004-048	While working on a pipe patch on the tail gas piping, a small leak of molten sulphur above the pipe being worked on caused an ignition. The fire was quickly extinguished. [REDACTED] reported the incident to the TSB.
2004-050	[REDACTED] called the TSB at about 17:00 EST on 11 November 2004 to report an overpressure on line 4. between Souris and Glenboro. During a scheduled shutdown, there was a transient pressure spike. There was no loss of product and no aftereffects.
2004-051	While reloading Line 100-1 between MLV 67-1 and MLV 69-1, a NPS 1 threaded pipe nipple started to leak natural gas to the atmosphere. The line was re-pressurized to approximately three-quarters of its maximum operating pressure when personnel heard the sound of escaping gas. Personnel immediately closed both the upstream and downstream block valves on the mainline valve bridle. The gas was escaping from the threaded nipple on the downstream side of the bridle. The nipple was a typical 4 inch Schedule 80 pipe nipple. The valve is a Nordstrom plug valve, weighing approximately 11 to 14 kilograms.
2004-052	While opening a valve which pressurized a 1 inch piping configuration, an operator noticed a sudden release of sour gas from one of the nipples. The operator immediately shut the valve stopping the release of gas. On investigation, a crack was discovered in the threaded end of the 1 inch threaded nipple on the downstream side of a one inch ball valve. The configuration containing the cracked nipple was on a 6 inch vent riser and consisted of (in order from upstream to downstream) a 1 inch weldolet, a threaded nipple, a 1 inch ball valve, a threaded nipple, a T connection, a threaded nipple and a check valve. Configuration a total of about 1 foot long. The Sched 80 cracked nipple was replaced with a Sched 160 nipple. Gas in the line contained 2-6% H <sub>2</sub> S at about 600 psi. Very small amount of gas release due the the quick actions of the operator.
2004-053	An overpressure occurred at MP 675 on Line 13. There was a restriction on the line of 740 psi and the pressure spiked to approximately 820 to 870 psi - a 13% overpressure. There is no indication if a reason for the spike. Enbridge personnel went to the site and everything checked out OK.
2004-054	Natural gas and oil was found leaking from the NPS ½ vent on MLV 60-3. It is not exactly known when the incident occurred or how much gas was released to the atmosphere as a result, because the site has not visited for the previous two weeks. The Technician was did confirm that 26 litres of Univis J13 hydraulic oil was released from the valve operator tank onto the ground. The spill covered an area of approximately 10 square metres.
2004-054	Natural gas and oil was found leaking from the NPS ½ vent on MLV 60-3. It is not exactly known when the incident occurred or how much gas was released to the atmosphere as a result, because the site has not visited for the previous two weeks. The Technician was did confirm that 26 litres of Univis J13 hydraulic oil was released from the valve operator tank onto the ground. The spill covered an area of approximately 10 square metres.
2004-056	A crack was discovered on a 1" nipple on a pigging barrel at the Kobes Booster station. Sour gas was released and Westcoast is calculating the amount. There were no injuries and no danger to the public as a result of the release. The barrel was shut in and gas went to flare.



2004-057	A contractor discovered a leak on the 16" Silver Dahl pipeline about 20 miles north of Fort St. John. The leak is about 200 feet south of the bank of the Blueberry River. Westcoast personnel are heading to the site and Westcoast has shut the line down. The closest residence is 2 km away and the pipeline carries natural gas.
2004-058	A landowner called TCPL to report a gas release at MLV 707-2 near Ville Mercier, Quebec. A technician discovered that the vent valve in the 16" line had failed. At the end of the cycle, the vent valve didn't seal back up. Corrosion had caused the valve to continue venting. The valve was isolated, repaired and reinstalled. The volume of gas was too small to be calculated.
2004-059	Workers noticed an audible leak from the 6" vent valve on Compressor unit #2. The valve was isolated, removed and sent for repair. Unit 2 was off line with unit 1 and unit 3 remaining in service. A new valve was to be installed before the end of the day. No impact on service, people or the environment.
2004-062	A sump tank overflowed releasing approximately 700 gallons of crude oil. Enbridge personnel believe that a pump tank start switch may have frozen. The oil was fully contained within the station. Odessa Station is 40 miles SE of Regina, SK at MP 473. The tank was on line 4. Similar spill the following week: Inc 2005-003 s.16(2)
2004-063	Eighteen hours after commissioning Montreal Station for full pipeline operation, a capacitor inside the outdoor switchgear cabinet exploded, causing damage to the cabinet and adjacent electrical components rendering the station inoperable. The incident was reported via the requirements set out in the Order conditions.
2004-064	While staff were inspecting the St. Clair pit, they detected a strong HC (C2?) Gas testing of the vapour space yielded 27% LEL. The source was suspected to be a valve packing leak. After attempts to stop the leak, the valve was removed to rebuild and replace the valve stem packing. Repairs complete by 5 May 2004. This incident report was obtained during a NEB site inspection of 21 March 2005.
2004-065	Company staff detected propane leaking from a 8" flange at the LaSalle Road skid. The flange had been under torqued which led to the leak. The incident report was obtained during a NEB site inspection on 21 March 2005.
2004-066	A release occurred on the tank lateral line that was idle due to tank repairs. The leak was ongoing for a time before discovery releasing a total of 5.6 m3 of oil and contaminating 260 m2 of soil. The spill was contained on company property and contaminated soils were removed and disposed of appropriately. The entire 16" section of suction/fill line was replaced with new 12" pipe.
2005-001	A gasket failed between the flair valve and the upstream pressure end of the sending barrel. This resulted in an momentary uncontrolled release of sour gas. Staff immediately depressurized teh barrel stopping the gas release. The volume of gas was not calculated at the time of release, but the barrel had been pressurized up to 200 psi when the failure occurred.
2005-002	Piping in the Steelman Terminal had been idling and was in the process of being re-pressured when workers discovered oil coming through the snow. Two seperate corrosion related leaks were discovered in the terminal piping. Temporary repairs have been completed with permanent repairs planned. Volume of crude released unknown at the time of reporting.

2005-003	<p>A sump tank overflowed releasing approximately 3.17 m3 of crude oil from the sump tank. Enbridge personnel believe that a pump tank start switch may have frozen. The oil was fully contained within the station. Odessa Station is 40 miles SE of Regina, SK at MP 473. The tank was on line 4. This is a repeat of 2004-062. Same station, same sump tank, likely same cause.</p> <p style="text-align: right;">s.16(2)</p>
2005-005  s.19(1)	<p>Prelim info: While investigating a fire alarm malfunction, a worker noticed that the flame on the flare stack was out and H2S was released. The flare was relit. The length of time the flame was out and the volume of H2S released is unknown. There were no injuries and WEI reported no danger to the public resulted.</p> <p>Update (see conversation record attached): called regarding the above noted event. The flare was extinguished by high, gusty winds. The plant is located in the mountains, so wind is not an uncommon occurrence. From time to time the flare can be sheared from the stack. The stack was simply relit. There was no effect on safety or the environment.</p> <p>The purpose of the call was simply to inform me that they had reported an excursion at the Sikanni Gas Plant in compliance with requirements of other regulators. They submitted a preliminary notification to the TSB and they also reported the excursion to WLAP, the appropriate provincial regulator.</p> <p>The event was not reportable under the PPR, and the purpose of the report was not a matter of compliance with the PPR. As such, no DIR was required under the PPR.</p>
2005-006	<p>During planned maintenance and while installing a jet mixing nozzle, a fitting came loose and allowed oil to release from the tank through a three inch hole. An estimated volume of 75 m3 (470 barrels) of sweet crude oil was released from a 30,000 m3 tank on company property. The police and EMS were advised (as a precaution) and the Fire Commissioner was on site to take a look. Enbridge is conducting gas monitoring during the clean-up.</p> <p>There were no injuries and no other problems.</p>
2005-008	<p>A spill of approximately 4 cubic meters of product occurred at approximately 11:00 CST and originated from a leak at a flange. Enbridge was placing a tank and a tank lateral back into service when the joint at the flange leaked allowing the product to spill onto the ground. Enbridge isolated the section of the pipeline to stop the leak. All of the spilled product was contained on Enbridge's site. The free product was sucked up and sent for treatment.</p>
2005-009	<p>During the afternoon of 18 February 2005, workers could smell NGL. They finally discovered the leak to be a weeping leak on a drain valve at the metre manifold into a sub. At 00:20 on 19 February 2005, the workers isolated the metre manifold.</p>
2005-011	<p>While rigging up a sideboom, a worker was struck on the leg. He sustained a fractured femur and was transported to the hospital in Fort Nelson. The incident occurred at 15:00 PST 30 miles N.E. of Fort Nelson on the Ekwan Pipeline.</p> <p>Investigation completed by HSO under CLC.</p>
2005-012	<p>A company employee walked out of a building, slipped on the ice and fell. Shortly thereafter he lost consciousness. The worker apparently hurt his back but reason for losing consciousness is unknown but he did not hit his head. He is back to work 22 Feb 2005.</p>



2005-013	<p>There has been a gas release from underground between the 2 &amp; 3 tie-over valves. There was enough force to move the ground. TCPL is waiting for pressure to decrease before investigating. TCPL feels the release is coming from the valve, but will not be able to determine the nature of the release until they excavate. TCPL does not consider this an emergency.</p> <p>After the site was hydrovac'd to the top of the valve, two broken NPS 3/4 grease fittings and one broken NPS 3/4 body bleed fitting were discovered due to local frost heaving.</p>
2005-014	<p>Sour gas release. There was no injury and danger for the public. The gas release happens during plant start-up. A pressure control valve did not seal properly and allowed the gas to bypass. The pressure of the inlet separator vessel increase above normal and the pressure safety valve was activated. The sour gas was vent directly to atmosphere. The vent pipe is located 30 feet above the nearest road way. The inlet valve was closed and the pressure decreased. Duke is monitoring the pressure control valve. Estimation of the gas release: No volume of gas was estimated and reported: Duke Energy indicated that the safety valve is set at 1030 PSI, the pipe is four inches in diameter and the gas release was estimated at 15 minutes.</p>
2005-015	<p>A contract employee, while operating a grader, slipped and broke his ankle.</p> <p>HSO visited site to discuss CLC issues related to event. see report att'd.</p>
2005-016	<p>At 14:15 MST an employee noticed an odor and discovered product on the ground. The facility was shut down. The release was thought to be in the terminal piping and may be from a flange. Enbridge is currently daylighting the leak site (17:30 MST). The estimated release volume is 3.8 cubic metres.</p> <p>Leak occurred at a flange that had improper tightened and torqued studs from the 6 to 9 o'clock position.</p>
2005-018	<p>Compressor was pressuring gas from the gathering system to the mainline pipeline. The valve to the mainline did not open as intended resulting in gas being vented through a 2" PSV. The compressor failed to shut down by itself or by on site intervention, but had to be shut down by gas control. Volume release unknow at this time. No injury reported.</p> <p>2005-04-11: There are no residents in the area, the compressor station is adjacent to the gas plant and located on crown land.</p>
2005-019	<p>TCPL reported a minor release of sweet natural gas. The "C" plant was shut down for routine maintenance and workers detected the sound of gas venting. Investigation revealed a leaking 3/4 - inch nipple on the upstream side of a 2" riser. A clamp was put on the nipple and the nipple cracked radially through the threads. The compressor casing was vented, the nipple threads were removed from the flange and replaced with a NSP 3/4 nutron ball valve and Pleco plug. The unit was returned to service. The failed nipple was examined and TCPL determined that the crack was caused by vibration induced fatigue.</p> <p>The maintenance work is part of TCPLs 2 year program to replace with heavier nipple assemblies. They are at the end of replacing about 2300 assemblies with a heavier NTP-160 assembly.</p> <p>There were no injuries, the source of the release was immediately shut-in, there are no environmental impacts, no contact was made to any first responders or residents and the company ERP was not activated. There is no estimate on the volume of gas released but TCPL considers it to be a small amount based on the short duration and the size of the nipple.</p>

2005-020	<p>Tank # 26 was down for maintenance and cleaning. Enbridge was flowing sweet oil from another tank into tank 26 in order to cut the bottom fluids of # 26. However, the D-door of #26 was open and product spilled into the bermed area around the tank. There was no jet mixing being done at the time of the spill. Enbridge estimates from 5 to 7 m3 of sweet oil was spilled. The D-door was closed and no further oil was lost. This was a procedural error and there was no equipment failure. The oil and a portion of the clay liner was immediately cleaned-up and removed to a hazardous waste disposal facility. Enbridge also called Alberta Environment in the event that calls from the public were made to Alberta Environment. Enbridge said that odours were present within the tank berms but were not detectable beyond the tank farm. It had not received any calls from the public.</p> <p>There were no injuries, no threat to the public, the spill was contained, the source was shut-in and the ERP was not activated.</p>
2005-021	<p>TCPL staff were performing a bi-weekly inspection when they noticed a gas leak at the B-plant discharge elbow tubing. The tubing is 3/8-inch diameter. The tubing had a crack at the furrelle and was shaking. TCPL believes it failed due to vibration. Workers isolated the tubing by closing a needle valve just upstream of the tubing, then replaced the tubing. There was no danger to employees or the public, no injuries, no contacts made other than TSB, and TCPL estimates the gas volume loss to be negligible.</p>
2005-022	<p>Duke reported a pinhole leak on its 36" N5-L2 line to the TSB on 2 May 2005, 19:00 EDT. The leak was detected 2 May 2005 at 9:30 am MDT during routine maintenance operations. The location of the leak is 26 km north of Chetwynd, BC in a remote location. The line carries sweet natural gas and Duke has not determined the volume of the leak but considers it minor, it does not know the duration of the leak but stated that it was not detected during the last maintenance operations 6 months ago at this location. Duke plans to blow down the line to repair the leak. It will contact the Town of Chetwynd to advise of the blowdown. There were no injuries, no first responders contacted, no environmental issues and no adjacent landowners or residents to contact. At 10:45 on 3 May 2005, Duke returned a call to NEB staff. Duke stated that the site of the leak was a 12-inch riser off the 36-inch loop pipeline. The loop section is 13.3 miles in length and this section of pipe was shut in and the gas re-routed. The leak was very small and could only be detected with a gas monitor. It expects the repairs to be completed and the pipeline back in service by 6 May 2005. Prior to blow-down Duke contacted the Town of Chetwynd, the local Municipality, the RCMP and the operators of a local hydro dam. Notification was given because of the potential loud noise of the blow-down operation. The gas was not flared but vented to atmosphere.</p>
2005-023	<p>Enbridge reported that an electrical switchgear component at utility building 410-sub-1 shorted out, which caused sparking and a small fire. The fire was immediately extinguished (within about 20 seconds) when the protective system kicked-in to shut down the electrical system. The fire was contained entirely at the site of the electrical switchgear in the building. The shut down affected the whole facility and some damage was done to other electrical components that received an electrical surge. Enbridge worked with the utility, Alta Link, to pinpoint the location of damaged components and the facilities were up and running within 2-3 hours. Enbridge did not indicate if the shutdown had any impact on deliveries. There were no injuries, no impacts outside of the Hardisty terminal, no environmental effects and no contacts made to first responders, the public or residents.</p>



2005-024	<p>A leaking fitting on an instrument line lost an estimate volume of 3 cubic meter of NGL. The fitting was located in an vertical inspection culvert. The liquid was contain in the inspection culvert and some liquid evaporated. Enbridge cleaned it up, the liquid was recovered with a vacuum truck and put in Tank number 73. KP 721. [REDACTED] in Saskatchewan</p> <p>Further conversation on Monday Enbridge indicated an estimate volume of 2.1 cubic meter of NGL.</p> <p>Cause: leaking on the treads. Enbridge change the fitting.</p> <p>The default fitting has been repaired and returned to service.</p> <p>There were no injuries and no fatalities.</p> <p>No impact on deliveries</p> <p>No environmental Issues</p>
2005-024	<p>A leaking fitting on an instrument line lost an estimate volume of 3 cubic meter of NGL. The fitting was located in an vertical inspection culvert. The liquid was contain in the inspection culvert and some liquid evaporated. Enbridge cleaned it up, the liquid was recovered with a vacuum truck and put in Tank number 73. KP 721. [REDACTED] in Saskatchewan</p> <p>Further conversation on Monday Enbridge indicated an estimate volume of 2.1 cubic meter of NGL.</p> <p>Cause: leaking on the treads. Enbridge change the fitting.</p> <p>The default fitting has been repaired and returned to service.</p> <p>There were no injuries and no fatalities.</p> <p>No impact on deliveries</p> <p>No environmental Issues</p>
2005-025	<p>Company staff detected propane leaking from the 8" flange at the Lasalle Road skid. The line was depressurized and the flange was re-torqued which stopped the leak. This is the second incident at the same location (see 2004-065). The company is attempting to obtain torque values from the manufacturer for insulating flanges.</p> <p>The incident report was obtained during a NEB site inspection on 21 March 2005.</p>
2005-026	<p>Alliance was in the process of starting up a pump unit at the Kerrobert Station. Once the unit was operating an employee noticed a gas smell. The pump was shut-in and the source of the odour was located. A crack was found on a 1" bleed pipe and natural gas was leaking from the crack. The pipe was immediately replaced and the pump re-started. Alliance will file a report and photos with the TSB on Tuesday 24th May.</p>
2005-027	<p>TCPL reported a cracked 3/8 - inch tubing that resulted in a minor gas release. TCPL was connecting a power gas feed to the mainline valve at MLV 23-2 near Grenfell, Saskatchewan. The gas feed is a 3/8 - inch carbon steel line that is under 80 psi pressure. The line cracked about 6 inches above the fitting to the MLV. TCPL immediately replaced the line and put the feed line back into service. There is no estimate of the volume of gas released although it is considered very minor. There was no impacts outside the MLV property, no injuries and no contacts made other than the TSB.</p>
2005-029	<p>Employee inhaled sulfur dioxide fumes. Didn't feel well. No long term effect on health.</p> <p>Added by [REDACTED] on March 9, 2011:</p> <p>Sulphur dripped onto hot piping and ignited resulting in a small fire. Workers used water to extinguish the flames. One of the workers was exposed to sulphur dioxide vapours and was sent for medical aid as a precaution. Workers will open the insulation to find and fix the leak. NEB inspection staff is on site conducting a routine inspection and has been informed of the incident.</p>

2005-030	While conducting an underground survey, workers obtained a gas reading of 30 ppm methane. Investigation revealed a small leak at a threaded fitting.
2005-032	<p>At 1:45 pm PDT on 13 June 2005, the JD Piling and Anchor crew arrived at the Kwoen Gas Plant from Fort St. John to unload, inventory supplies and conduct a tail gate meeting.</p> <p>Mr. [REDACTED] the foreman, noticed Ms. [REDACTED] an employee of JD Piling and Anchor, stagger and collapse.</p> <p>Ms. [REDACTED] informed the crew that she had not eaten since noon 12 June 2005 so the crew gave her some food and water. She complained of a headache and was instructed to rest while the crew traveled from the Kwoen Gas Plant to kilometre 26.5 on Lower Burnt Road, on the Goodrich Re-injection Pipeline construction project. This trip took approximately 45 minutes.</p> <p>At approximately 3:30 to 3:45 pm the foreman asked Ms. [REDACTED] to measure fence post pipe. After 2 to 3 minutes, the foreman noticed Ms. [REDACTED] on the ground having a seizure.</p> <p>Ms. [REDACTED] was loaded into an industrial ambulance and transported to meet the BC Ambulance at kilometre 2.5 on the Lower Burnt Road. Ms. [REDACTED] and the foreman then traveled in the BC Ambulance to the Chetwynd Health Centre. While enroute, Ms. [REDACTED] stopped breathing on her own. At about 7:20 pm on 13 June, the ambulance arrived at the Chetwynd Health Centre. Hospital staff decided to transport Ms. [REDACTED] to Dawson Creek Hospital.</p> <p>At about 11:00 pm 13 June, Ms. [REDACTED] was admitted to the Dawson Creek Hospital Intensive Care Unit and passed away at 7:53 am 14 June 2005.</p> <p>Mr. [REDACTED] was informed of Ms. [REDACTED] death at 12:15 pm and contacted Mr. [REDACTED] DEGT Project Inspector who then left telephone messages with Mr. [REDACTED], DEGT Construction Coordinator and Mr. [REDACTED] DEGT Project Manager. Both individuals were travelling at the time and did not receive the messages until the morning of 15 June 2005.</p> <p>Mr. [REDACTED] reported the incident to the Transportation Safety Board 15 June 2005.</p> <p>A site visit was conducted at about 6:00 PM on 16 June 2005 by DEGT senior management: Mr. [REDACTED], Vice President - Operations; and Mr. [REDACTED] Director, Projects-West; and by NEB Inspection Officer, Mr. Henri Simoneau.</p>
2005-034 s.16(2)	<p>At approximately 6:50 pm Calgary time a call was made to the TSB incident reporting line by Duke Energy Gas Transmission. A leak was reported on the 30 inch gas transmission pipeline MP 61. [REDACTED] (line 4BL1 - sweet natural gas) near the unincorporated community of Kersley approximately 6 km. south of Quesnel on the Dale Lake Road.</p> <p>Duke was conducting an anomaly dig when workers noticed that the coating was blistering and bubbleling. Workers stated to buffer and sand the pipe when gas was released. The work area was evacuated including residents in the area.</p> <p>Duke's 650 metre emergency planning zone included approximately 50 residents who were evacuated to the Sandman Inn in Quesnel. RCMP are controlling access to the site and the local fire department has responded. There are no reported injuries or fires.</p> <p>Duke land man and public relations people were on site.</p> <p>Duke indicated that it started to depressurize the line at approximately 5:20 PDT</p> <p>The residents were able to return to their residence late in the evening.</p> <p>NEB and TSB are responding to the incident.</p> <p>Updated Event Type to Release of Product ([REDACTED])</p>

s.19(1)

s.19(1)



2005-035	<p>Location - The gas release event occurred at a pig receiver assembly situated at the junction between the NPS 6 Paddle River Lateral and the NPS 36 Alliance mainline. This junction point is located approximately 50 kilometres to the southeast of Whitecourt, Alberta.</p> <p>For further geographic perspective, reference may be made to the receipt points map which is accessible through Alliance's web site at <a href="http://aplwww.alliance-pipeline.com/contentfiles/27____ReceiptMap.pdf">http://aplwww.alliance-pipeline.com/contentfiles/27____ReceiptMap.pdf</a> &lt;<a href="http://aplwww.alliance-pipeline.com/contentfiles/27____ReceiptMap..pdf">http://aplwww.alliance-pipeline.com/contentfiles/27____ReceiptMap..pdf</a>&gt;</p> <p>The Paddle River receipt point is designated as AB49 and appears towards the right-hand side of the map, beneath the inset (the lateral is approximately 1.7 kilometres in length from the receipt point station to the mainline junction).</p> <p>Description - One of the Keyspan operators was driving by Alliance's Paddle River side valve and could see fumes (shimmer effect could be seen). He stopped and could not hear anything, and proceeded to call Alliance Gas Control to report the observation. An Alliance technician was dispatched and found the door to the pig receiver assembly to be leaking. The NPS 10 pig barrel was blown down and isolated (could be isolated locally without any blowdown of the lateral itself). The o-ring was found to be compressed and will be replaced as soon as practicable.</p> <p>Lost Gas - Not quantified, but amount would have been extremely low.</p> <p>Follow-Up Actions - A new o-ring has been ordered, and is expected to be installed some time next week.</p>
2005-036	<p>A leak of approximate 2 cubic metre was reported at station 4 pump room in Metiskow, Alberta. A gasket on a pump flange failed. The operator shut down the line, the gasket was replaced and the line was back in production two and half hour later. (19:00 MDT). The product was clean-up. The oil was contained within the pump room. There was no injury.</p> <p>Some oil had leaked onto the ground outside the building through a ventilation screen. Contaminated soil was removed to site containment area.</p>
2005-038	<p>1/2 inch nipple broke. Gas flow was stopped immediately by shutting isolation valve.</p>
2005-039	<p>Received an odor complaint and discovered oil on the ground in a ditch in beside a public road. A vacuum truck was called and they are uncertain of the origin of the oil. The oil is cooling and they believe it is crude oil. Quantity unknown. The tank farm has been shut down and the pump stations remain operational at this time. The company has invoked their emergency response plan. Emergency people are on site. Abbotsford fire department, local police, and B.C. environment are on site. Seven residents in close proximity have been evacuated. Subsequent to the first report to the TSB, the company discovered additional oil in a marsh area. The OSCAR unit has been deployed; ETA unknown but the OSCAR is in Hope, about 1 hour distance by road. About 100 metre length of ground has been affected.</p> <p>TSB File #9700-A000-1-41</p>
2005-040	<p>Enbridge maintenance personnel arrived on site and detected heavy crude on site in many different places. Preliminary reports indicate the oil is contained within the site all inside the berms. The station and line 4 have been isolated and shut in. Preliminary estimate of volume lost is 200 barrels. Closest resident 1 mile away (approx.) Enbridge landman going to visit landowner within the hour. Perimeter has been established and a response crew is in transit to the site. Enbridge employees are checking benzene and H2S levels and are taking safety precautions. There are no injuries. TSB response undetermined at this point.</p>

2005-042	While pressure washing pump station equipment near the pump house, a contract employee reported the pressure washer 3-ton truck was on fire. A company maintenance employee, on site at the time, tried to bring the fire under control by dispersing a 150# wheeled fire extinguisher and several 30# extinguishers but was unsuccessful. A 911 call was initiated and the fire department and RCMP responded immediately. Upon arrival the fire department extinguished the fire. There were no injuries or damage to company equipment or Enbridge property. The contractor's pressure washer truck was completely destroyed.
2005-044	A sour gas leak was sighted by a geotechnical engineer at MP 20. on the pipeline during a helicopter survey of the area. They landed and confirmed bubbles in Little Bear Dam Creek but the water was not spraying. The company declared this a Level 1 emergency. The EPZ is 800 metres with the nearest residence at 9.6 km to the north. Company personnel are currently, 13:20, manually closing valves via helicopter access and flaring at both ends of the pipeline. Residence were notified of the flaring and have no concerns. They will be planning the repair strategy this afternoon.
2005-045	While investigating a gas alarm, enbridge staff noticed a seal leak at one of the NGL pumps at the Hardisty Terminal. The pump was Isolated and by-passed. A repair crew is being dispatched to repair the Seal. Only a minimal amount of fluid was released. Although this has not been confirmed.
2005-046	While investigating a gas alarm, Enbridge staff noticed a leak from the bonnet valve on Unit 3 of Line 1(NGL) at one of the NGL pumps at the pump station. The pump was Isolated and by-passed. Staff were on site and are making the necessary repairs. Only a minimal amount of fluid was released 0.001m3, although this has not been confirmed.
2005-048	At the Decompression/Recompression Facility there were two gas releases, one in the building, one outside of the building from NSP 2" line. There were 75 to 100 workers evacuated. ESD activated - line shut down. No injuries or fire (now confirmed). No estimate of volume released. No known injuries (now confirmed). TSB notified and likely EUB notified. Contained and controlled on site. Media attention not likely. Regional EOC stood down at 13:40 MDT - emergency declared over. TSB File: 9700-A000-1-42
2005-051	Smoke & heat detector alarm in Cubical B. Initially appears that a high impedance fault melted insulation and created a small electrical fire with smoke in the control room. No injuries; no leak. Cubical B de-energized and damage repaired by 08:00 CST, 23 Oct 2005. Facility back in operation by 22:22 MST, 23 Oct 2005.
2005-052	A carpenter was working on a scaffold nailing beams with a nail gun. As he was changing position, with his finger on the trigger, it is surmised that the action end of the gun hit a board and the gun fired. A 2.5 inch nail entered his abdomen. The carpenter subsequently had surgery. Alberta OH&S was on site today (27 October 2005) to conduct an investigation and has taken custody of the nail gun for further testing. However, the safety on the gun appeared to be functional. Enbridge has been requested to submit the contractors incident investigation report and the Enbridge incident investigation report. There was some confusion by the Enbridge construction group in Edmonton as to whether or not this was reportable to the NEB. They received confirmation from their compliance group that it was reportable. This confusion may have resulted in the delay in reporting.



2005-053	<p>While brushing the RoW, a felled tree hit a de-energized low voltage line that feeds power to the plant. This caused the low voltage power line to swing up into the vicinity of the 144,000 volt BC Hydro power line that feeds Fort Nelson. There was an arc, and a transformer blew and fell to the ground and caused a small brush fire. The fire was extinguished with hand held extinguishers. The power was out in Fort Nelson for 1.5 hours, and though there were some fuses blown at the plant, the plant continued to operate.</p> <p>The caller did not know if the transformer contained PCBs, but will follow up on that with the plant electricians.</p> <p>The call was received directly to the NEB incident phone at 11:16 MDT on 29 October 2005.</p>
2005-054	<p>An employee was working in the Charlie Lake Maintenance Base, doing some pre-fab work for the pipeline. A welding clamp fell and pinched his hand. Employee was airlifted to Edmonton and his Pinky finger had to be removed.</p>
2005-055	<p>While Enbridge was working with a Backhoe on the valve site, the Backhoe struck the valve and some crude was released. It is estimated that 45L of product was released. Line 9 was shut down and clean-up is underway. No injuries.</p>
2005-056	<p>Husky was sampling raw diesel fuel (called cutback liquid) from the 6-inch Border pipeline at its custody transfer facilities at the end of the Border pipeline, NW1/4 31-49-27 W3M. A 1-inch coupling on a booster pump mounted on an analyser skid either backed-off or was not tightened properly and the union leaked. The pump was shut-down and Husky estimates about 2 cubic metres of diesel spilled. The spill was contained within the custody transfer site and all free liquid was recovered. There were no injuries, no impact on deliveries, no fluids left the site and there were no public concerns. Husky called the NEB incident cell before calling the TSB. Staff told Husky to call the TSB also. The TSB called the incident cell to confirm the incident was reported to TSB.</p>
2005-057	<p>On 13 November 2005, TCPL was pre-heating on pipe in preparation for a hot tap site when a small flame (approximately 10 -12 inches high) ignited on the ground. The flame was extinguished immediately with a fire extinguisher. It was determined that the stem was leaking natural gas into the ground. Thirty minutes after the flame had been extinguished, TCPL conducted a sniff test which revealed no evidence of natural gas. TCPL then proceeded their work on the pipe. There were no injuries, no impact to deliveries and no public concerns. TCPL will be replacing the stem seal and re-packing it.</p>

2005-059	<p>The pressure safety valve (PSV) at Windfall started relieving even though the station discharge Pressure was at a normal level of approximately 12,017 kPa. This triggering was premature, as the PSV is not meant to start relieving until the pressure level has reached some higher level (typically up to 10% higher than the licensed maximum operating pressure). The on-site technician quickly alerted Gas Control to the event, and the discharge pressure was lowered to about 11,990 kPa, whereupon the PSV closed. The valve was taken out early that following day, and recalibrated and reinstalled.</p> <p>* Lost Gas - The amount of any lost gas was minimal, as the on-site technician quickly recognized the situation and alerted Alliance Gas Control.</p> <p>* Follow-Up Actions - The valve was taken out early that following day, and was recalibrated and reinstalled..</p> <p>Alliance is providing this report on the premise that the captioned occurrence may be reportable under the NEB's Onshore Pipeline Regulations, 1999 (and possibly also under the Transportation Safety Board Regulations).</p> <p>In closing, if you have any associated questions, please advise.</p> <p>[REDACTED]</p> <p>Senior Regulatory Compliance Specialist Alliance Pipeline Ltd.</p> <p>[REDACTED]</p> <p>E-mail: [REDACTED]@alliance-pipeline.com</p>
2005-060	<p>Release of Sweet Natural gas; 9,030 scf. While pressuring pigging barrel, a 24" blind flange gasket failed. The barrel was isolated; gas vented and the gasket was repaired.</p> <p>Provincial Emergency Plan # 502-539</p>
2005-061	<p>10m 3 iso-octain released from a failed gasket into secondary containment at Edmonton terminal on Transmountain system; no injuries; spill stopped in several minutes.</p>
2005-062	<p>A leak occurred in the o-ring of the pigging barrel door releaseing 1400 cubic feet of sour gas. The barrel was depressurized and repaired.</p>

s.19(1)



2005-063	<p>On 07 May 2005, vandals broke into the TQM Lachenie Facility, stole tools and took a propane bottle into the cab of a TransCanada truck, opened the bottle and ignited the propane. The Fire Department were called to extinguish the fire. There was extensive damage to the truck, but there was no damage to the facility,</p> <p>There were no injuries and there was no interruption in operation of the facility. Vandals were caught.</p> <p>TQM understands that the police have made some arrests in connection with that incident.</p> <p>Since the incident TQM has undertaken the following security improvements at its Lachenaie site:</p> <div data-bbox="229 400 2615 776" style="background-color: #cccccc; height: 170px; margin: 10px 0;"></div> <p>TQM believes that the above measures, combined with prompt responses by emergency services to any calls received,</p> <div data-bbox="229 776 2615 864" style="background-color: #cccccc; height: 40px; margin: 10px 0;"></div> <p>TQM considers that the exchange of views with the Municipality regarding the incidents at Lachenaie has contributed to better understanding by both parties and, thus, improvements to the security of its facilities and the surrounding community.</p> <p>This incident was deemed to be reportable under the OPR 99 as this was an unintended fire within an NEB regulated facility. The company truck is within the rate base and as such, fall under NEB regulatory oversight.</p>
2005-064	<p>A power blip resulted in a station isolation. The line 100-2 Discharge Valve did not completely seat itself which resulted in an unintended release of natural gas that continued for 45 minutes. An adjustment nut on the end of stoke valve had drifted and required an adjustment to ensure the discharge valve would close.</p>
2006-002	<p>An employee entering the station heard gas venting on the utility piping. The gas goes through two regulators in series. The relief valve on the first stage regulator was open and venting. That portion of the run was isolated. The regulator will be pulled and examined. It is suspected at this time that due to recent local weather temperature fluctuations that a suspected ice blockage (hydrates) resulted in a ruptured diaphragm in the regulator. The release is presently under investigation.</p> <p>The NEB incident cell received a call @17:02 MST Jan 17 from the TSB (819-997-7887) who was notified at 19:00 EST by Trans Canada PL (403 920-7069) of an uncontrolled and uncontained natural gas release (domestic gas supply) that had occurred 16 Jan 2005 @07:00 EST from the La Cedres Quebec #148 compressor station.</p>
2006-003	<p>A service company reported a sweet gas leak at a valve site. The company discovered that it was a packing leak on a 10x8x10 blow down gate valve on the 26" Alberta pipeline. The leak was half way between Taylor &amp; Dawson Creek, B.C. and the nearest resident &gt;1km away. The company has been in contact with the landowner. At the time of the call, the company was planning the repair.</p>
2006-004	<p>An adjacent gas plant employee discovered a small leak in a 1/2 inch tubing line to the valve actuator. A company worker replaced the o-ring. Minimum amount of sweet natural gas was lost. The station is 70 km west of Whitecourt.</p>

2006-006	H2S released at KP 00 from crack in 18" X 10" pigging flare line on backflow. Line isolated and depressured barrel - vented through flare stack. No injuries and public unaffected.
2006-007	Third party contractor detected methane gas and reported it to TCPL. On inspection, TCPL confirmed a slight gas leak (4%) from a 4" plastic riser at valve site 91-022 DXO (91 km + [REDACTED] from AB-Sask border). Local farmer is aware of leak and will stay away. TCPL to hydrovac the valve site to determine specific cause. Event Type Updated to Release of Product ([REDACTED]) s.16(2) s.19(1)
2006-008	Environment Canada alerted TSB. TSB notified NEB that TNPI confirmed a leak in the pipe near the intersection of Tomken Road and Eastgate Parkway in Mississauga, within 500 m of a subdivision. TNPI has dug out around the pipe to locate and repair. TSB to photograph and provide digitally. No injuries reported. NEB requesting more event information. Contact is [REDACTED] TNPI. As per 27 & 28 April email updates, the calculated amount of product released was 866 L or 0.866 m3 (< 1.5 m3). s.19(1)
2006-010	There was a sudden interruption of flow in the pipeline section after an attempt to switch receiving tanks by the shipper's bulk plant personnel did not succeed as planned. The system immediately and automatically shut down to protect the pipeline low pressure station manifold; however, in the combination of line packing and surge pressures caused the line controller to observe the line pressure to rise momentarily to 1430 psig, which is 16.5 psig over MAOP. There were no damage or injuries reported as a result of the event.
2006-017	Damage to floating roof of 150,000 barrel condensate tank resulted in product on the roof, but no product was released. Enbridge ([REDACTED]) indicates that condensate tank is being drained and repair options being considered. Benzene and mercaptan levels downwind of the tank are within limits. s.19(1)
2006-018	The Enbridge Control Centre alarm went off at 07:00, valves auto shut-off at the Mildren station at kp 475. Employees immediately investigated and saw NGL weeping from a pump flange gasket. The pump was bypassed and the remaining NGL in the pump was flared. The leak occurred for a very short period of time and Enbridge estimates .02 cubic metres of NGL vapourized. No environmental issues, no injuries, no public complaints, nearest urban centre is Mildren 16 km away. Enbridge will keep the pump shut-in and bypassed until it is able to run oil through the line. The repair work will be safer to do after oil has purged the pump of remaining NGL.
2006-019	At about 13:00 MDT on 5 April 2006, workers at the TCPL Elko Compressor Station in SE British Columbia heard a loud pop from one of the compressor buildings and then saw smoke emit from the building. The station monitoring equipment immediately shut in the compressor (A plant, Rolls Royce Avon jet and centrifugal compressor). This was the only compressor operating at the time. A fire in the building ensued for less than one hour. Workers attempted to extinguish with 30 lb. extinguishers, could not enter the building and the fire was too large for on-site fire equipment to manage, there was considerable damage to the building. Other responders (fire Dept from Bainsborough) were dispatched to the site however the fire was almost out by the time they got there, the fire Dept foamed the building to further suppress the fire. No natural gas was involved in the fire because the plant ESD-ed. At this point TCPL believes the fire was caused by heated lube oil. TCPL will investigate the cause of the fire and conduct repair work starting 6 April 2006. There was no impact to other buildings nor to anything beyond the subject building. No environmental issues, no injuries, no public complaints, no effect on deliveries, no nearby residents, nearest urban centre is Elko about 10 km to the west. Reported to TSB by [REDACTED] Contact with TCPL is [REDACTED] s.19(1)
2006-021	590 L crude oil released when bleed-off valve inadvertently left open. Spill contained on lease, well isolated and vacuum truck on-site to remove free product and impacted snow. Spill File closed 14 February 2006.



2006-022	1000 L of fresh water was released due to freezing and splitting of a water line. Water was contained in a natural depression and froze there. No further clean-up required. Spill File closed 12 April 2006
2006-024	10,000 L fresh water released due to hole in flow line. Water was contained in a natural depression and froze. No further clean-up required. Spill file closed 2 May 2006.
2006-027	Possible release of 560 L Ucartherm (glycol/water mix). Line was shut in , subsequent pressure test confirmed a slow leak. Imperial to investigate leak location and impacts when snow has melted. Spill file is open.
2006-028	40,861 m3 fresh water containing elevated copper was released in two events from the Central Processing Facility backwash pond into the Mackenzie River. Elevated copper was discovered while attempting to identify cause of toxicity test failure. Imperial continues to investigate source of elevated copper. NWT Spill 06-110 was closed as clean-up is not possible. PID file remains open.
2006-030	12,000 L fresh water released due to loss of containment at Bear Island Terminal #3. Water was contained in a natural depression and cleaned up immediately. NWT Spill file 06-143 closed 12 April 2006.
2006-031	320 L of crude oil sprayed onto snow due to equipment failure. Contaminated snow to be removed by vacuum truck and disposed. Spill file 06-148 and PID are open pending Imperial Oil updated report.
2006-032	TCPL staff were working with a portable gas transfer compressor at station 30. A crack was noticed on top of the volume tank where a bracket is welded to the top of the tank near the suction valve. The tank was immediately isolated and taken out of service, tubing to the tank was plugged and remaining volume bottles were inspected. At this point TCPL guesses this is a fatigue failure caused by vibration at the weld. The TCPL integrity group is investigating the cause of the crack. Although TCPL does not have any volume estimates, it stated that there was very minimal amount of gas released. There was no impacts on deliveries, no effects off station property, no environmental concerns, no injuries, nonpublic concerns and no other responders were involved.
2006-033	0.2 m3 of snowmelt within tank 201/202 berm was released through a culvert which is experiencing corrosion along a seam. No sheen visible on water, no anticipated adverse effect. Culvert will be repaired and plugged.
2006-034	40 m3 of surface water overflowed the Battery 3 Impounding Basin when water from another area breached a culvert. Water sample results met Water Licence criteria. NWT Spill #06-186 closed.
2006-035	320 m3 surface water runoff overflowed the Impounding Basin. Water met Water Licence criteria. NWT Spill #06-187 closed.
2006-036	Unintended fire occurred on the RoW when pigging by Encana caused the Encana Gas Plant to flare and sparks landed on the Westcoast RoW resulting the fire. Encana staff extinguished the fire.
2006-038	Compressor Station tripped. Relief valve opened. No damages. Had an unintentional tripping of shutdown system which caused one relief valve to open for an unintentional release of gas from unit 3. Unit 1 and 2 were restarted and then # 3 compressor was reloaded.

2006-039	The operator discovered a sweet gas leak on a ¾ inch nipple located in the process unit building. The operator isolated the vessel and reduced the pressure from 700 to 50 pounds per square inch over a two hour period. The valve was greased and sealed and pressure was further reduced down to zero from 10:00 to 20:00. The nipple was replaced. The operator is of the opinion it was metal fatigue (air line crack). The vessel was put back in service. There was No alarm No evacuation No injury Level 1 Emergency
2006-040	A pin hole natural sweet gas leak was discovered during Champion's regular leak detection program. Champion Pipe Line (GMI) is planning an investigating dig for Thursday 1 June 2006 and will perform magnetic particles testing and X ray on the 8 inches steel pipe (OP 5000 KPa).
2006-042	Plant shut down and went to flare unexpectedly (cause unknown at this time) which resulted in a fire extending beyond the flare pit. At the time of the call 19:00 MDT, Westcoast was in the process of a controlled startup. Cause is under investigation.
2006-043	While draining storage tank for cleaning prior to tank inspection, a valve was inadvertently left open. When pressure went up, approx. 1.5 m3 crude spilled over covering surrounding area and piping. Spill was contained inside building.
2006-044	There was a molten sulphur release of 5300 kg from the rundown piping upstream of the sulphur pit onto the ground at the gas plant. The sulphur solidified and was contained within the plant boundaries. No danger to the public. No significant effect on safety or the environment.
2006-045	There was a release of approximately 40 lb (18 kg) of Freon at the Imperail Oil Central Processing Facility. The release was caused by ice falling off a building, damaging the air conditioning condenser during winter. The release occurred during the automatic start-up. NWT Spill # 06-243.
2006-046	Spill detection system on fresh water injection system identified a potential anomaly on Lateral 2. Suspected segment was isolated immediately. The affected segments are presently inaccessible for positive confirmation of leak as they are submerged due to abnormally high water levels. Operations will continue with segment shut in and leak location will be confirmed when flood waters have receded and facilities are accessible. No environmental adverse effect is anticipated due to this potential release.
2006-047 s.16(2) s.19(1)	DEGT reported that while preparing to place sulphur pipeline into commission while they were remelting to liquid sulphur they experienced leaks from sulphur pipeline at 2.1 km and 2.2 km down the mountain side towards the pelletizing plant. This is a very steep section down the mountain side. DEGT are considering calling it ruptures. The leak at 2.1 km was small splatter on the vegetation The leak at 2.2 km volume was approximately 2 m3. DEGT. Ron Park of TSB called to report a DEGT incident at Pine River Gas Plant Sulphur Pipeline. DEGT contact: [REDACTED] [REDACTED] DEGT have made arrangements to truck sulphur from the Pine River Gas Plant starting Monday 10 July 2006
2006-048	During regular turnaround, a vessel was opened to clean and inspect. Iron sulphide began to smoulder - about 5 to 6 gallons - and was extinguished with water. No threat to persons or the environment.
2006-049	While restarting Train "A" at the sulphur plant, the sulphur rundown piping froze off, resulting in a back up and overflow of approximately 1000 kg of molten sulphur onto the ground. The solidified sulphur has been cleaned up and recovered. The rundown piping has been cleaned out and put back in service. The incident was reported to the TSB but not forwarded to the NEB. The incident was included in the TSB's Occurrence Report.



2006-050	Workers at McMohan Gas plant noticed that a Hazmat bin had caught fire. The fire was immediately extinguished. The bin was used to store used filters. Westcoast believes the bin caught fire because of the very hot daytime temperature and resulting heat buildup inside the bin. No injuries, no off site impacts, no damages to equipment.
2006-052	4722 SCF (134 m3) of H2S gas was released when a 3/8 inch piece of tubing attached to the relief valve of the #2 compressor let go. Duke Energy (Westcoast) crew evacuated the building after hearing a loud noise. The crew initiated the Emergency Shut Down.
2006-053	Fire occurred due to Auxiliary Power Unit overheating and igniting APU spark plug wires. Smoke detector was set off and ,Technician on site completing an APU test run extinguished the fire with a fire extinguisher.
2006-054	Goose Island at T 23x bunker, Norman Wells. 5 m3 fresh water release, no environmental impact, no injuries.
2006-055	<p>A landowner reported a 10 x 30 ft stained patch of soil in a pasture, near Provost Alberta. The stain was reported to Enbridge's control centre. The stained soil patch was found in the middle of a pasture, with no free-standing oil visible.</p> <p>Board staff called Enbridge for further information at 21:57 MDT. Enbridge advised that they were responding to the incident, mobilizing equipment and anticipated digging by 23:00 MDT. Enbridge also advised that their lines were down. Enbridge has notified RCMP and the Provost Emergency Services.</p> <p>Enbridge Contact: [REDACTED] s.19(1)</p> <p>Landowner: [REDACTED]</p> <p>At 9:09 MDT on 10 August 2006, Enbridge advised that they have located a leak on line 2 (their 24" pipe), on the long seam weld of the pipe, adjacent to the butt weld. Enbridge has retrieved 1 barrel of oil and were unable to recover the rest as some of the oil (amount undetermined) is saturated in the sand. Enbridge's Safety and Environment staff are on site as well as their repair crew. Enbridge will continue to investigate the incident.</p> <p>TSB phoned NEB at 11:20 MDT on 10 August 2006, advising that Enbridge indicated that there was an anomaly in the weld, that they are in process of excavating and they estimate a loss of 5 to 6 barrels.</p>
2006-056	<p>At 14:55 TC staff smelt burning synthetic oil. The lube fire was located behind the turbine, between the cladding and coupling. The unit ESD was activated and fans and pumps were shutdown. The fire was put out at 15:07.</p> <p>TransCanada reported no damage to the compressor, no injuries, no evacuation of personnel and no impact on business. The TransCanada Emergency Operation Centre was not activated and no emergency services were called to assist.</p>
2006-058	On 16 August 2006 at 11:40 MDT NWT/Nunavut 24 hour spill report line phone and report that 18 cubic meters of Fresh Water was released at Imperial Oil Resources (NWT) Limited Lateral 4 Fresh Water Injection on Goose Island. No adverse environmental impact anticipated.

2006-060	<p>██████████ of Alliance Pipeline reported to TSB at 13:50 EST that Morinville Compressor Station release valve PFV 1200 had prematurely released natural gas at 3.46 AM MDT. Valve has been isolated for repairs.</p> <p>Contact info: ██████████ s.19(1)</p> <p>*****</p> <p>2006-09-06- received a call from Sturgeon County Fire department (██████████) who had got a complaint from a landowner about Alliance's response to the incident above... I called the Landowner (██████████) and left him a message regarding his issue.. I will wait to hear back from him..</p> <p>*****</p> <p>2006-09-07-I Received a call from ██████████ (Nearby Landowner (L/O) ) ██████████ regarding the Alliance Incident 2006-060 (Morinville Station) and he is concerned with Alliance's Response to the Incident. Mainly around the fact that he had to call Alliance and tell them that the pressure relief valve was releasing. He was surprised and concerned that this was not picked up in their control center.</p> <p>When he had called Alliance at 3am to report the release, they informed him that that it could not be their station because the control center was reading no problems (green lights). The L/O then had to stick the phone out the window of his house so that Alliance could hear for themselves the pressure relief valve discharging. Then actions were taken. Also in the meantime other L/O's in the area had called 911 and thus the fire department and police were dispatched to the site....</p> <p>Off course there was more to the conversation, so I asked the L/O to put his concerns in writing and to send it in to the Board... He agreed.</p> <p>I did some preliminary investigating:  Constable Andronyk, RCMP File number 2006-1044140 (he is on Days off right now) received the incident. (780) 939-4520  Morinville Fire department Dispatched to site 03:10am, fire chief arrived at site 03:12am. Fire department stood down at 03:18am. (Fire Chief, ██████████)</p> <p>JK</p>	s.19(1)
2006-061	<p>Rob Johnston of TSB called on 4 Sept, 2006 to inform NEB that ██████████ of DEGT had reported a methane gas leak at Compressor Station 2 at kp 19 on the 30" line. The incident occurred approximately 13:30 PDT. This location is approximetaly 40 km south west of Chetwynd, BC; it is fairly remote and is just off the main road.</p> <p>One Technician is on site monitoring and two are under way to repair.</p> <p>Suspect valves and/or o rings leaking.</p> <p>No injuries</p> <p>No danger to public</p> <p>██████████ can be contacted at ██████████ s.19(1)</p>	
2006-062	<p>sour gas leak at a 10 inch pigging barrell on the Milligan - Peejay Pipeline about 40 km NE of Fort St. John, BC. The incident occurred approximately 12:40 PDT. WEI suspects aproximately 500cu.ft of sour gas was released from the door of the pig Barrell. The Barrell has been depressurized and Technicians are scheduled to make the neccessary repairs Today.. ██████████ can be contacted at ██████████</p>	

s.19(1)



2006-066	<p>TSB called NEB on 14 September at 21:10 MDT to report a gas release and fire at the Westcoast Energy Inc. (Duke Energy) Stoddard Booster Station. The Stoddard station is located approximately 16 kilometres north west of Charlie Lake B.C. at mile 64. on the Alaska highway. At approximately 17:20 p.m. PST, an operational upset at the McMahon Gas Plant caused an alarm at gas control and shut-down. The upset caused pressure buildup in the pipeline which, in turn, caused the Stoddard booster station to Emergency Shut Down (ESD), the excess sour gas in the pipeline was re-routed to the flare pit at Stoddard where it was burned. Westcoast does not have any estimates of volume of sour gas at this time. The Stoddard ESD functioned properly and no damage to equipment resulted. At approximately 18:00 PST Westcoast staff discovered the fire at Stoddard. The fire spread from the flare pit to an area of about 100 metres by 100 metres. Westcoast suspects the fire spread as a result of the very dry conditions and possibly dry leaves in and around the flare pit. A fire attack helicopter was dispatched immediately to the site where it dumped several loads of water on the fire. The fire was put out by 19:45 PST and Westcoast made the call to the TSB at 20:00 PST. Westcoast also contacted B.C. Ministry of Forests which dispatched an initial attack crew to the site. At approximately 19:30 PST the B.C. Forests crew arrived on site and monitored for hot spots in brush around the area. Westcoast states that the fire did not get into any standing timber and it is not sure if the fire was contained to Station property. Westcoast left a fire watch and station personnel at the Stoddard station over night. The BC Forests crew left the site at about midnight. The nearest residents are approximately 2 kilometres from the station, there was no evacuation necessary however Westcoast notified the nearby residents of the fire. There were no injuries, no evacuation, no impacts on deliveries and no damages to equipment. Company contact is [REDACTED]</p> <p style="text-align: center;">s.19(1)</p>
2006-067	<p>Liquid Petroleum Gas (propane) release at the BP Sarnia plant, located on the south side of the City of Sarnia, Ontario. The 8-inch BP pipeline from the Sarnia plant in Ontario crosses under the St. Clair River into Michigan, U.S.A. The line was being re-pressured after it was down for maintenance. BP had personnel stationed at each valve site on the line and when the line reached 790 psi, a minor leak was detected on a 4-inch riser valve packing. The line was shut-in. BP will inspect and repair the valve and or packing and test the line again. BP estimates a loss of about 1 gallon of liquid propane. BP monitored for LEL and gas leaving the site, and it notified nearby neighbors that it will be conducting repair work. There were no injuries, no product left the site, no environmental effects, no other responders and no impacts on deliveries. The company contact is [REDACTED]</p>
2006-068	<p>Technician noticed a low gas alarm in the gas generator enclosure. The release was caused by a broken sensing line on the fuel gas manifold. The unit was shut down and the line replaced. Unit was restarted without further issue.</p>
2006-069	<p>The Souris Valley Pipeline has been shut down in the U.S. by its parent corporation (Dakota Gasification Co.) due to a leak on a new circumferential weld (3 inch crack) at a stopple fitting. The leak is about 35 miles south of the border, north of Tioga N. Dakota. Currently, Encana and Apache are the only Souris Valley customers effected by the shut down. The stopple was installed to remove an ILI tool that became lodged this past spring. The leak was found while recoating the pipeline after the repair. Currently, Encana and Apache are drawing down the line pressure to 1200 psi (from an operating pressure of 2170 psi). This is as low as possible without causing phase changes in the product stream. The incident was reported in accordance with the Souris Valley Pipeline certificate conditions.</p>
2006-070	<p>A crew was hydro-vacating in preparation for work to be conducted at the Hardisty Terminal when they encountered soil contaminated with crude oil. Currently, the 30 inch Husky line is suspected and the company is exposing the line. The source of the leak was not found at the time of the call. The company is handling the contaminated soil appropriately.</p>

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2006-071	While hot cutting the floor out of an out-of-service tank, petroleum contaminated soil caught fire (6 inch flame). The flame was put out with a 30 lb fire extinguisher. There were no injuries or evacuation.
2006-072	A Kinder Morgan' employee driving on Highway 13 near Hardisty, Alberta was hit by a stolen truck trailer that enter the highway for the ditch. The Kinder Morgan truck rolled over and crashed. EMS, using the Jaws of Life, removed the driver from the vehicle. The driver has serious injuries and fractures and was airlifted to an hospital.
2006-073	A three (3) person crew was exposing a stub to shot an elevation. After the shot had been taken and while back filling, the bucket of the equipment stuck the nipple causing a natural gas release. The stub was isolated and a minimal amnount of gas was released. There were no injuries, no ignition, and no interruption of service as the stub is at the end of the loopline.
2006-074	A 12-volt battery exploded on a packer. The packer machine stalled and would not start due to dead battery. Contractor proceeded to boost the machine using booster cables. Upon startup the battery cover was closed and within 5 seconds the boosted battery exploded. There were no injuries as a result of the incident. Immediately following the incident, the packer machine was shut down and towed out of the tank berm area. Maintenance personnel checked out the failure and installed a new battery. The contractor is having further discussions with the manufacturer regarding hazard awareness reports and also investigation various types of battery holders to reduce vibration on this type of equipment.
2006-075	A precautionary pipeline shut down due to a strike on a pipeline. On 10 October, 2006, at 15:50 MDT, a third party contractor was excavating across the mainline @ KP 293 near Hinton Alberta when the excavator fell into the excavation and struck the pipe causing minor damage to the pipe. The pipeline was shut down and examination of the pipe revealed that the coating was scored. Repairs were completed and at 16:50 MDT the line was reopened. There were no injuries, no release, no fire and approximately a 1 hour shut down
2006-077	A minor amount of natural gas was leaking from the gasket on the insulating flange downstream of the sending barrel isolation valve. The gasket was replaced and the pipe stresses were relieved by cutting the pipe at an exisiting field weld and re-welding the pipe.
2006-079	Enbridge (NW) experienced an unintended propane leak into boiler while contractor was servicing office bldg heater. This was caused by malfunction of the regulator which was froze causing an immediate flow into the boiler when valve was opened. This was minimized by immediately closing of valve and replacing regulator. Propane is stored outside. Regulator from Propane Tank to Boiler froze. This incident was feported to TSB Oct 23/06. No fire occurred. No personnel were injured. No danger to public. Enbridge (NW) Inc contact: [REDACTED] s.19(1)
2006-080	On September 14, 2006 liquid was pumped to the FX train storage tank through a transfer hose. The FX storage tank is a lined tank. The transfer hose was mistakenly hooked up to a leak detection observation port which is used to detect liner leaks. It is suspected that the liner had a pre-existing leak since the tank did fill even though the liquid was entering between the liner and the tank wall. The FX storage tank was initially empty and was confirmed full at 04:45 on September 15, 2006. Once the tank was full, Operations employees attempted to blow the line clear into the tank using utility air. The bottom of the tank began to leak immediately, spilling liquid to the ground.
2006-082	ExxonMobil reports a gas release occurred through the body of two valves that were being closed. There were no injuries and no gas plant evacuation, but employees were temporarily moved to a safe area.



2006-084	<p>On 8 November 2006, a 10" strainer failed at Enbridge's Cromer Terminal, resulting in a crude oil leak which was contained on station property. The leak was caused by a scraper pig becoming lodged in piping at the Cromer Terminal, causing an overpressure that resulted in the failure of the strainer.</p> <p>(On 23 October 2006, Enbridge Westspur discovered that they had lost a scraper pig in their pipeline system, and believed it was somewhere between the Steelman and Cromer terminals. At the time of the subject incident, Enbridge was in the process of locating the missing pig. )</p> <p>There were no injuries and no explosion. The spill was contained on Enbridge property. Enbridge contact is [REDACTED]</p> <p>[REDACTED]</p>
	s.19(1)
2006-085	An explosion in the crankcase to a reciprocating engine causing the door to blow off. There are 3 compressor units. Number 3 compressor has a reciprocating engine that has a door on the crankcase area. The engine experienced an explosion/failure in the crankcase area and the resulting explosion blew the crankcase door off. The engine subsequently shut down. Engine oil was spilled but contained in the building area. There were no injuries or environmental impacts. Duke is submitting a detailed report.
2006-086	two Enbridge employees were injured during a pigging operation on a 12" NGL pipeline at the Enbridge Cromer Manitoba terminal ( 2 hr west of Brandon Man). Four pigs were sent down the line a barrier pig caliper and a MFL followed by another barrier pig. Methane was used as the propellant in the NGL line. Three employees (2 Enbridge and a contractor) were working at the receiver end and received the four pigs. The pigging trap was isolated and the trap bled down. Three pigs were removed, but the fourth was stuck. In an attempt to remove the fourth pig, the two Enbridge employees were struck when the pig released. The employees were evacuated to a hospital in Virden Manitoba where it was determined that one employee had a bruised wrist and the other employee had a broken hip. The employee with the broken hip has been transferred to a Winnipeg Man. hospital The trap on the receiver was closed and there was a minimal liquid release. Enbridge reported that on 23 November 2006....
2006-087	Enbridge staff discovered a leak at booster pump #7 check valve, resulting in 80 m3 of oil spilled. The leak was stopped and cleanup operations had commenced.
2006-088	Montreal Pipeline company experienced a flashfire while cutting pipe at their Montreal Quebec 10803 Sherbrook St. East facility. Two cold cuts had been performed on a 'T' joint, a third cut did not completely cut thru the pipe and a lift was used to move the "T" up and down so that a fatigue crack would develop and break off the uncut section. It is believed that the movement of the pipe caused a spark when the two ends struck each other. The pipeline had crude oil vapours in the line which were the probable cause of the flash fire. There were no injuries and the flash fire was over quickly and there was no need to extinguish.
2006-089	<p>An electrician was working in an MCC for an overhead cooler fan when he was burned in the face with an electrical flash. Employee was taken to Fort Nelson Hospital where she was tended to by doctors. Evening of 05 Dec 2006 the employee was air lifted to Vancouver where he is being tended to. Employee is coherent and functional.</p> <p>TSB Ron Clark called to inform that DEGT had reported an employee injury at DEGT's Fort Nelson Gas Plant at 17:00 hrs 05 Dec 2006.</p> <p>DEGT contact: [REDACTED] EHS Coordinator [REDACTED]</p>
2006-090	Lattice boom crane fell on contract operator resulting in fatality. NEB IPL certificate number EC-III-25 resulting from EH-2-2002.

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2006-091	<p>A small nipple leak of sweet gas from a small nipple at Compressor Station 2B at 1100 hrs 08 Dec 2006. Station was immediately shut down; nipple was removed and piping capped.</p> <p>Ron Clark of TSB called at 1637 hrs MST on 14 December 2006 to inform that [REDACTED] Mech Ops Team Leader had called at 1825 EST 14 December 2006 to report...</p>
2006-092	<p>Darlene Roosenboom of TSB called in at 1422 MST to report an Enbridge incident. Pipe nipple failed spilling approx 6 m3 of crude oil. Nipple was removed and 3/4 inch piping was plugged.</p>
2006-093	<p>A release of 0.3 m3 of Ucatherm (glycol/water mix) occurred from the Day Tank at line Heater #1. The spill is terminated and is contained to the utilidor. Once the leak is confirmed the location will be cleaned and the product disposed of appropriately. Fax received from the NWT Spill line at 16:39 December 30, 2006.</p> <p>Contact: [REDACTED] IOR, [REDACTED]</p>
2006-094	<p>A release of 0.3 - 0.4 m3 of Ucatherm (glycol/water mix) occurred from the glycol circulation system on Island 5. It appears to have come from the heat trace line. The spill is terminated and is contained to the Island which is lined. Fax received from the NWT Spill line at 15:35 December 31, 2006. Release is currently under investigation by Imperial Oil Resources.</p> <p>Contact: [REDACTED] IOR, [REDACTED]</p>
2006-095	<p>A patrol plane pilot reported crude oil in the tank lot. Free liquid was picked up by a vacuum truck. Oil contaminated snow &amp; gravel is to be disposed of at the Newalta treatment centre. Cause was a line break in 10" inlet line. Pipe will be removed when conditions permit - spring/summer 2008 and a failure analysis will be completed at that time. No impacts to people or the environment.</p>
2007-001	<p>Contractor was taking ground soil sample using drilling device. Contractor was taking soil sample using a drilling device. Winch broke and fell hitting contractor on head making a hole in hard hat. Contractor unconscious for a short period. Contractor was grazed on forehead cutting forehead and is on his way to hospital in Verden, Manitoba by ambulance.</p> <p>Contractor was talking normal mentioning he had been hit harder on the head working on his vehicle. This location is approximately 1/2 mile from Kromer, Manitoba.</p> <p>Enbridge contact: [REDACTED]</p> <p>Sitte is secured and Manitoba OHS have been notified.</p>
2007-003	<p>A tank cleaning contractor employee used a none intrinsic electric equipment to thaw out equipment (possibly a heat gun), the crude oil vapour ignited and one contractor employee suffered first degree burn on in face. The fire was put out by another contractor employee with an extinguisher. The employee was transported to the hospital, was treated in the emergency room and was released. EMS was not called to respond to the incident. Enbridge has a maintenance program cleaning tanks at the Sarnia Terminal, Ontario. The maintenance program has been going on for several weeks. The worksite remains closed until Enbridge terminate its investigation.</p> <p>Occurrence - Unintended fire</p> <p>Cause - Contractor using non-intrinsically safe equipment in hazardous area</p> <p>Result - Contractor suffered first degree burns to face and neck</p>



2007-005	The company was notified that oil was found in an area where Kinder Morgan operates a delivery line within Husky lands. They dispatched personnel and determined the leak was from the Terasen line. At present, the spill volume is about 5 bbl. The line has been pressured down since about 06:27 today, the time of their last delivery. The spill is contained to Husky lands, nothing has gone off-site, no injuries, no fire, no complaints from public, terasen is cleaning-up, they will excavate, repair, reclaim and report.
2007-006	A local trapper noticed the leak and a crew to the site confirmed that a pinhole leak existed. The line was shut-in and flared back to the Devon Gas Plant. Depressurization is expected to be completed later today. AltaGas will dispatch an excavation and repair crew as soon as possible. AltaGas will also file a preliminary report and a detailed incident report later. There were no injuries, no environmental damages, no other impacts.
2007-007	An oil lubrication line detached from a compressor unit at station 130, oil sprayed onto an exhaust coupling on the compressor and caught fire. Employees were on the scene and immediately extinguished the fire. There were no off-site impacts, no injuries, no impacts to deliveries.
2007-009	A relief valve (PSV) partially opened and released gas pressure for 31 minutes. The valve has been replaced and will be tested to determine the cause of the opening.
2007-012	Back-flow of acid gas from the sulfur train caused H2S alarm to sound. Employees were not exposed or injured by gas. Back-flow followed an intentional shut down of equipment. Millwrights were called to investigate the noise and the engineer performed an emergency shutdown of the Acid Gas Heater. Millwrights discovered a failed bearing on the Train 11 heater forced draft fan. A gas detector indicated that H2S levels were increasing in concentration due to the non-functional draft fan. Maintenance staff completed repairs to the fan under supplied air and breathing masks. By 17:20, the bearing had been replaced and the heater had been successfully restarted.
2007-013	Glycol spill reported, notification to PEP (603271) relayed to NEB/TSB. The tubing was removed and the supply valve was plugged to eliminate the potential of this type of incident re-occurring during the scheduled Pine River Plant Outage in June 2007. The practice/procedure for properly decommissioning equipment to be taken out of service was reviewed with operations and operation engineering at the Pine River plant.
2007-015	1" relief valve malfunctioned, and released gas for 20 mins.
2007-023	Public complaint - a hydrocarbon substance was leaking from a vent stack of a 30" cased crossing. The substance is a casing filler that is a hydrocarbon substance. The product liquefied over the winter and leaked into a ditch, flowed through a culvert into a pond on the south side of the highway. The company put booms out, the temperature has dropped and the pond has frozen over. Truck will arrive on the 20th to commence with clean-up. The vent is no longer leaking and had stopped when discovered by the farmer. Occurred near 3 km north of Hixon B.C. on the north side of Hwy 97.
2007-028	A small scale fire was reported at Alliance maintenance shop at Grand Prairie office. Two ventilation fans could not be shut off. Once the control panel was shut off, Alliance realized there was a fire. Damage occurred to the relays which were replaced. No injuries reported. Reported by [REDACTED] Alliance Pipeline, tel. [REDACTED]
2007-030	While re-lighting a unit heater, an employee sustained a minor burn to his hand.

2007-031	Filter door gasket failed. 4 hour HVP release. ExxonMobil Goldboro controlled site. No injuries or measurable effect on environment.
2007-033	While inspecting the yard at Compressor Station 34, Near Portage La Prairie, TCPL workers discovered a leak from a cracked pipe nipple on a 1/2" X 6" pipe on the suction side of mainline valve 34-4 sensing line system. System was shut in and depressurized. The cracked nipple was replaced with a heavier nipple and the system was restarted with no leaks.
2007-034	A pressure drop from a heavy crude oil leak was detected by the control centre and the 34" line was immediately shut-in by Enbridge. The leak, on Line 3 at Mile 506, is contained in a small 50 m by 150 m wetland area, 2 miles east of the Glen Abon, SK Pump Station. There is no drainage out of the site.
2007-035	A 40 m3 release of crude oil occurred at the Hardisty terminal. This 40 m3 release of crude oil was from a meter manifold and was caused by a broken screw.
2007-038	Small gas leak from power gas tubing line of MLV 38 located in Starbuck, MB. TCPL replaced the tubing line. Volume of gas release unknown.
2007-040	While changing a Fisher (Model 630) Regulator, the regulator body blew-apart and shrapnel damaged ancillary equipment. No gas released, No Injuries
2007-041	Fire in welding shop. No Injuries.
2007-043	Pigging flare carried-over igniting grass. Burned for 45 mins. Standby helicopter extinguished fire with 2 buckets of water. On company property, no injuries, no off-site impacts, no other responders, the incident was controlled by the company.
2007-045	A contractor service vehicle cab caught fire at the Carson Creek Compressor Station on 17 May 2007 at 10:30 MDT. The vehicle was a Ford F350, parked inside the facility fence, between two compressors. The doors were closed and the windows were slightly open. The fire was extinguished and there were no injuries. Vehicle wiring had been altered after-market in order to install a power outlet in the cab. This wiring caused the fire. Alliance notified the TSB of the incident at 21:34 MDT on 17 May 2007.
2007-046	Leak on flare stack identified. (Knock-out drum rupture.) Isolated immediately.No injuries reported. Remote location. Co.'s ERP not activated.
2007-047	Sour gas leak from its 26 inch pig bell door gasket. Isolated, depressurized, repaired and put back in service. No effects
2007-048	A valve flange gasket leaked 10 m3 oil into a containment pond at the Wahleach Pump Station 20 km southwest of Hope, BC. The main line was restarted at 10:35 MDT after an hour and fifteen minute shut down by by-passing the station. Terasen notified B.C. Provincial Emergency Preparedness (PEP) and the Department of Highways. No danger to the public, no injuries and no significant environmental impact is anticipated. No third party response expected.
2007-051	Gas leak from cracked T at tie-in from spent producer. Remote location.



2007-052	An H2S analyzer failed that resulted in a slug containing up to 17% H2S from an operator entering the system at the meter station. The operator has been shut in until reason for non-specification gas entering the system can be determined and plans are in place to ensure this does not happen again. The slug is currently moving down the system and being diluted. The next sampling opportunity will occur at Kerrobert. The analyzer is being repaired or replaced. The operator was injecting for 25 minutes before it was determined the levels of H2S were too high for the shippers system.
2007-053	A fire alarm at the pump station was detected at the control centre which shut down the pumps and closed the manifold valves. On arrival to site there was evidence of fire at the control valve top works, but no active fire. The fire department had been called in to assist and arrived on scene concurrent with field services staff. It appeared that an absorbent pad, layered around the top bonnet of the control valve, had ignited. The stem shaft connecting the motor of the control valve to the lower body had become disconnected and through repeated torsional metal to metal movement, had heated up enough by friction to cause spalling of the stem and erosion of the threads in the clamping blocks. These hot fragments appeared to have fallen onto the absorbent pad resulting in ignition.
2007-054	Gas leak at valve stem (packing). 100 m off highway. Site fenced and locked. Monitored to ensure no effect on safety.
2007-055	An Enbridge operator heard a loud bang from the Control Room at the Edmonton Terminal. Smoke was observed coming from the Line 1 building. No flames were visible. Enbridge assumed it was an electrical problem. Strathcona Emergency Services were dispatched to the Edmonton Terminal. There was damage to the electrical equipment. Enbridge has bypassed the electrical for Line 1. Line 1 is running at a reduced rate. Line 13 (18") is still shut down. There were no leaks and no injuries. In a follow-up phone call, Enbridge advised they were alternating, where the demand is, between Line 1 and Line 13 (apparently there is less demand on Line 13 and therefore it is not always running).
2007-056	Injury to a interior plumbing contractor while he was working on and inspecting the installation of a control valve involving long slings. While inspecting the slings and installation, the control valve slipped in the slings and fell on the contractor causing a fracture of the leg. Near Kamloops B.C. @ facility called PetroCanada Take off
2007-059	Up to 0.5 m3 of Ucarthem (heat transfer liquid) spilled from a heat trace line at the Norman Wells plant site. Spill poses no risk to wildlife or habitat. Clean-up has started. Volume determined to be 350 L (26 July 2007)
2007-061	At station 25 Vermillion Ont. Technician noted failure of pipe nipple on "B" unit on discharge @ station. Uncontrolled release of sweet gas. Nipple was replaced with pipe plug. Volume released is unknown. There was no environmental damage, no injuries, no safety concerns and no interruption of service. Plug was a 1/2" x 4" NPT Schedule 80. TCPL is reviewing the failure.

2007-062	<p>An unintended release of natural gas occurred at the M&amp;NP Burnside Industrial Park pressure reducing station. A member of the public noticed the release and called the local fire department. The fire department in turn reported the incident to M&amp;NP. The Fire Department also responded by setting up a road block on a major road near the M&amp;NP station. The road block was in place until M&amp;NP responded and shut-in the pressure relief valve. The release occurred for approximate 2 hours, 15 minutes from a 3.25" relief valve under approximately 3450 Kpa. (500 psi) pressure. M&amp;NP determined that a pressure control valve did not seat properly which caused the pressure relief valve to open and vent gas. M&amp;NP isolated the pressure control valve by re-routing to a redundant filter run and M&amp;NP is now conducting repairs. M&amp;NP estimates about 8.9 MMcf of gas was released. M&amp;NP states that there was no threat to the public, responders or company workers and it did not activate its emergency response plan. M&amp;NP reported the incident to the TSB on 16th July and the TSB immediately reported the incident to the NEB incident cell. There were no injuries, no evacuation, no damage to equipment, no impact to deliveries.</p> <p style="text-align: right;">s.16(2)</p>
2007-064	<p>At approximately 21:00 MDT on 20 July 2007 Enbridge was conducting an investigative dig on line 2 at KP 103 to investigate an anomaly detected from a recent tool run. Oil was found next to the pipe and so Enbridge immediately shut-in line 2. Further excavation revealed a pin hole leak. There was no oil at the ground surface and no oil had left the right-of-way. Enbridge reported that the oil occurred within about 1" of the pipe. Approximately 15-20 cubic yards of contaminated soil was removed and Enbridge estimates less than one cubic metre of oil had leaked from the pipe. Enbridge plans to complete a sleeve repair by noon on 21st July 2007. There was no risk to the public, no impacts off company lands and no environmental hazards.</p>
2007-065	<p>A pipeline carrying heavy synthetic crude oil within the city of Burnaby was struck by a backhoe (City of Burnaby contractor), releasing 232 m3 oil into a densely populated urban area, covering a number of homes and entering Burrard Inlet via the storm sewer system.</p>
2007-066	<p>During an annual maintenance, a vent valve on the section pressure transmitter was accidentally left open. Sweet natural gas was released. volume unknown. Other information reported included: PEP # 701295, gas pressure was at 800 psi, orifice of the valve was 3/16 inch, and it vented for 985 seconds. No injuries reported.</p> <p>Contact: <span style="background-color: black; color: black;">[REDACTED]</span> s.19(1)</p>
2007-067	<p>While checking a pipeline anomaly 40 km south of Chetwyn B.C., a maintenance crew discovered a pin-hole leak at KP 0. near Station 2 on the sweet gas 30" Fort Nelson Mainline. WEI is isolating the pipe section and will blow it down. Residents in the area are being notified that there will be a loud noise during blow-down. One residence is approximately 0.6 km from the leak and in the EPZ. No injuries, no fire, no explosion, no property damage, no impact to the highway, and no evacuation is necessary. Pipeline repairs will be made as soon as possible. Spectra Energy contact <span style="background-color: black; color: black;">[REDACTED]</span></p>
2007-068	<p>An operation problem at the sulphur plant affected the gas train process; the H2S level increased which resulted in an emergency flaring. Grass ignited within the flare pit. The plant fire truck was on site and it was decided to monitor the fire and let it self extinguish. Westcoast will produce a detailed incident report. It appeared that there was a problem at the sulphur plant earlier during the week. The cause of today problem is still unknown. No damage to the public. No evacuation</p>
2007-069	<p>Farmer was cultivating his hay field on the east side of the river when his cultivator hooked a guard protecting the valves and pulled it across two valves ( 6" and 4"). A 4" stem off the 6" valve was broken off and gas was leaking out a 3/4" vent pipe 4' above ground. The line was depressured from 600 to 350 psi. Security was on site and a Brandon Manitoba crew with Manitoba Hydro Gas Division was dispatched to the site. Gas release increased in volume as the pipe was exposed. Crew was on site to replace a section of pipe that was connected to the valve and the valve will be replaced at a later date.</p>

s.16(2)  
s.19(1)



2007-070	The 24 inches pipeline between Husky and Kinder Morgan storage facilities leaked and spilled 3.15 m3 of crude oil. It appears the cause is internal corrosion. The spill was contained within Husky's facility and source of the leak shut off. Husky and KM staff on site and clean-up crew (vacuum truck) were called in. The line will stay shut until repairs are completed. KM contact indicated that it wants to run a smart pig before opening the line again.
2007-071	<p>Gas bubbling to the ground from the 36 inches sweet gas main line at 48 KP South of McMahon Gas Plant (7 kilometers NE of Pine River crossing). Westcoast reduced the operation pressure from 825 to 750 Kcal. The line will stay in service all night. Westcoast is mobilizing staff and equipment to be on site in the morning. The line will shut down when the repairs are executed. Westcoast is looking at option to reroute the gas through TCPL since it will have the shut down the McMahon Gas Plant to execute repairs.</p> <p>The leak is in a remote area. Closest residence is 6.2 km.</p> <p>Staff were sent to secure the area and kept possible hunters away from the site.</p> <p>The leak is located near the Stewart Lake where Westcoast installed a 36 inches pipe and took out of service its 30 inches due to slope stability. Line Break valve located at 36.5Kp and manual block valve at 49.4Kp</p> <p>Weather: Rain and thunderstorms. Helicopters are grounded</p> <p>No impact on water</p> <p>No damage to the public</p> <p>No evacuation</p>
2007-072	<p>Westcoast reported, that while conducting a dig at the mainline station 2B they discovered soil contamination.</p> <p>Contact: [REDACTED] s.19(1)</p>
2007-073	<p>2 workers at the CNRL receipt point at Mile 1 [REDACTED] of the 8 inch Monias Pipeline discovered a pinhole leak in a ¼ inch steel tubing coming off the valve going to a grease nipple. Spectra dispatched staff to the site and replaced the ¼ steel tubing at the receipt point.</p> <p>No injuries</p> <p>Contact: [REDACTED] s.16(2) s.19(1)</p>
2007-074	A pinhole leak in a weld was discovered during routine maintenance. The pipe will be cut out and the defect will be evaluated. Suspect the defect may be porosity.
2007-075	<p>Trans Canada was doing an investigative dig on their pipeline between Bowmanville and Cobourg Ontario (135 [REDACTED] + 19. [REDACTED] km) and had depressured the line to 4780 kPa . It was discovered that there was a leak on the long seam weld. The line was isolated and depressured further and repairs commenced. There were no injuries or additional damage.</p> <p>Event Type updated to Environmental Release [REDACTED] s.16(2) s.19(1)</p>
2007-077	<p>Local farmer, [REDACTED] reported to Spectra Energy that he could hear gas escaping inside a Spectra Energy metre station near Compressor Station 5, Kersley BC. The metre station distributes fuel gas, via a 1/2 inch 60 psi line, for the residence and a water pump. A work crew located and repaired a cracked nipple on the fuel gas line and, shortly after 15:00 PDT, reported the gas leak to Spectra's gas control. No injuries, no evacuation, no danger to the public. Spectra Contact: [REDACTED] s.19(1)</p>

2007-078	After removing a MFL tool from a pig receiver trap a four inch drain valve was left opened. Upon re-pressuring the pig receiver 18 barrels of oil were spilled, the oil overflowed the sump tank and flow into a nearby excavation. The excavation was part of another project that is been executed by Enbridge within the pump station. A vacuum truck was on site at the time of the incident, the oil was recuperated the same day. There was no injury
2007-079	<p>██████████ of Imperial Oil Resources reported a small spill of Ucartherm (glycol and water mixture) on artificial island #3. The source of spill was Heating system pump seal failure. A small area of approx 4.375 sq meters was contaminated. Volume determined to be 170 L.</p> <p>██████████</p> <p>Ops Superintendent: ██████████ s.19(1)</p>
2007-080	An employee at the Cactus Lake pump station found a leaking gasket in a buried check-valve. Approximately 3.18 m3 of crude oil was released. The oil was contained and remediated within the Enbridge's site. One nearby landowner has been notified in the event there are any odours. No reported injuries, no damage to equipment, no impact on deliveries and no anticipated environmental impacts.
2007-081	During construction of the Anchor Loop project a contractor employee was struck by a side boom and sustained a an open compound fracture of the leg. The employee was air lifted by air ambulance to the Hinton Hospital. The employee is stable and conscious. This is a serious injury as defined in the Onshore Pipeline Regulations-1999. NEB staff called Kinder Morgan for more details however there is not alot of information KM can provide at this point. The company is investigating the incident, taking photographs of the site and statements from workers. The incident occurred at 17:15 MDT on 22 October 2007. Please see PID for further details.
2007-083	Paramount reported a spill of 200 L of Norkool, a glycol-water mix, from a loose fitting in the compressor building. About a 4 m2 under the compressor building is impacted. No injuries or affected parties reported. Paramount field contact is ██████████ s.19(1)
2007-084	A contractor doing brush work for Enbridge, using a skid steer with a forest head at about 17:30 EST, was burned up on the RoW of Lines 7, 8, & 9, at KP 3006.██████████, approx. 15 km NW of Hamilton, ON. In addition to destroying the skid steer, the fire burned about 15/ x 20' of RoW but did not extend off RoW. The Hamilton Fire department responded and extinguished the fire using a dry chemical. The Landwoner has been notified and has not expressed any concerns. Nearest residence is Gulliver's Trailer Park, approx 0 ██████████ km from the site . There were no injuries, no evacuation and no damage to pipeline equipment or infrastructure. s.16(2)
2007-085	At 10:43 MST, a gas detector alarmed in the control room indicating gas in the fuel gas building that services unit # 1 at Station 394. TCPL shutin the upstream and downstream valves and opened the doors to vent any gas in the building. Leaking gas could be heard only if the door was open. TCPL suspects a thread leak from the downstream 3" isolation ball valve. As a precautionary measure, TCPL is reporting the leak in case it is more than a minor fugative leak. The valve assembly has been shipped to Edmonton for testing and confirmation of the leak source. There are no nearby residences. No injuries, no threat to public, no environmental impact and no disruption to service.
2007-087	<p>200 L release of mixed produced water and fresh water occurred within Imperial Oil Resources Norman Wells Central Processing Facility plant, from a sump drain line and impacted an area of 1.75 m2. Four samples contained 33 to 130 ppm chloride. No adverse environmental effects anticipated and the impacted area will be cleaned up.</p> <p>IOR Contact: ██████████ s.19(1)</p>



2007-088	While starting the compressor the operator observed a 2" fuel gas line crack and come apart and some fuel gas was lost. The operator shut the unit down immediately. Amount was so small that the gas detectors did not detect any product. Fluid was sweet fuel gas. At Whitecourt Alta AB47
2007-089	Station 30-C Plant Mainline Valve #30 near Brandon Manitoba. High gas alarm went off in the compressor building which set off the alarm in the control room. Operator investigated and found 1/4 inch nipple broken on the recycle valve. The piping was isolated, the nipple was replaced and system was returned to service with no further incident.
2007-090	Pipeline froze off due to hydrates. Procedures required controlled flaring and a minimum of 24 hours with the pipeline shut down. They plan to bring the pipeline back on line later today or tomorrow. They are strictly following operational procedures and have enough personnel on site to conduct operations in a safe manner. No safety or environmental concerns.
2007-091	A valve or expansion fitting on T-204 failed resulting in a spill of 1.6m3 produced water/oil. (Slim line off produced water tank). Area of contamination was 3m2. Spill is frozen and contained within tank berm on the plant site. Spill will be cleaned up and any ground contamination removed.
2007-092	Failure of an electrical vacuum breaker caused an arc flash on the line 2 substation. The breaker catastrophically failed causing the panel to blow open. No injuries and the company suspects downstream cables may be damaged.
2007-093	On 8 Dec at 1100 PT at compressor stn 7 (Savanna, BC) overpressured pipe to 978 psi (mop 936 psi). There were no failure, no injuries and no product lost. PLC program failed (CPU card) malfunctioned Spectra Contact: [REDACTED] s.19(1)
2007-095	While installing a UT Meter on the Mainline within the Edmonton Terminal there was an unintended ignition within the Pipe. They suspect that some vapors got past the mud plugs. All work was stopped and then the the section was subsequently cold cut out, and then the process was started over again with new mud plugs. ***The pipeline was drained down at the time. No Injuries, no product lost or environmental concerns. s.19(1) [REDACTED]
2007-097	During routine calibration of a fixed gas detector in the Gold Creek, AB Meter Station, personnel discovered a minor gas leak from the threads on a 3/4 inch nipple on the compressor start gas fuel line. The compressor was shut down for about 2 hours, 15 minutes to repair the leak. Gas detector readings were not high enough to trigger automatic shut-down. No injuries, no nearby residents, no evacuation, no environmental effects,.

2007-098	An employee used a portable heater to warm a company truck that would not start due to extreme cold temperature which resulted in a fire and destruction of the truck. The truck was parked at the home of the employee who was on-call during the holidays. The heater, commonly used for pre-heating frozen equipment, was a self contained unit consisting of a kerosene burner, electric fan, flexible duct and fuel tank. The employee set the heater up approximately 1.5 meters from the truck, directing the flexible duct under the engine compartment of the vehicle. After the heater had been operating and observed for approximately 10 minutes the employee left the area for additional fuel; leaving the heater running. Upon his return he noticed that the truck had started fire. An attempt was made to put out the fire using dry chemical fire extinguishers, but was unsuccessful. The local volunteer fire department was called and responded at 09:15 MST, extinguishing the fire.
2008-001	Eight cubic metres (8m3) of crude oil released as a spray leak from a flange on a booster pump. Oil is contained within the terminal. There are no injuries and no danger to the public. A vacuum truck is being brought fro clean-up.
2008-002	An undetermined quantity of produced water was released from a holding tank and contained within the berm area of the Norman Wells tank farm. No injuries or environmental effects reported. No risk of further contamination. Volume determined to be 43 m3 of produced water and oil, removed with vac truck.
2008-004	Release of 600-700 bbls of crude resulting from an above ground flange gasket on pump elbow of unit 4 U3 on line 4. Have not determined exact cause. Release predominantly contained within the building with some migrating outside - all on station property. Vac trucks and steam cleaners on site. Initially, all lines shut down and isolated, then all except line 4 restarted. No injury; no fire.
2008-006	While ripping ground in preparation for trenching, stuck the Atco pipeline and released gas. Highway shut down by RCMP at 13:15 and re-opened before 14:30 p.m. Release is within 10 k of the east Jasper park gate, 1 km west of the Overlander Lodge (closed), kp 324 TMPL. No ignition, injury or environmental impact. Atco personnel on site after the release. The line supplies gas to the Atco generating station that supplies power to Jasper and TMPL pump station. Atco requested the TMPL pump station be shut down to decrease load on the generator so they can supply power to Jasper. NEB inspectors in the area and heading to the site of the line strike.
2008-008	Employees observed sweet natural gas accumulation believed to be from an insulated flange that is wrapped and buried at Prophet River Stn FNL-1 south of Fort Nelso, BC. Temperatures have dropped from minus 35 degrees C to minus 44 degrees C. Pipeline continues to operate and Westcoast is monitoring the site waiting for the weather to break. Nearest residence is 4 km away. No danger to the public.
2008-009	Sometime after midnight on 27 January 2008, a loss of less than 1200 L of caustic hydroxide was discovered. The leak occurred in the lean caustic cooling system that eventually discharges to the Peace River at Taylor BC. Westcoast estimates that the leak would have occurred over a 3.5 hour period during which approximately 15,000, 000 L of cooling water was discharged. The discharge is a result of equipment failure due to corrosion of the heat exchange bundle. Caustic cooling unit has been taken off line. The gas plant continues to operate. No reported injuries or effects.
2008-016	Minor Valve leak was noticed on the foothills system back in January 2008. Work Order was put in. Minor leak can only be repaired properly by shutting down the whole pipeline system. Product: sweet gas contact: <span style="background-color: #cccccc; display: inline-block; width: 150px; height: 1em; vertical-align: middle;"></span> s.19(1)



2008-018	A release of natural gas occurred at plidco plug upstream of the tie-over. The company believes that the plidco plug was left open by contractors that were on site earlier in the day. The plug was closed and the release stopped.
2008-020	A Gas detector discovered a small leak inside the portable gas compressor on Station 55. It was found that the leak was caused by a crack in the housing of the PECO filter (Model 85-1-FG 36) on the compressor. The Compressor was shut in and is now under repair. The Cause of the crack is unknown at this time.
2008-021	A Public Citizen reported a minor gas leak from the Mainline valve #97. The valve was Isolated and by-passed. The leak was coming from the control Box on the Valve. No interruption in service or harm to Public. TransCanada is investigating the Cause.
2008-027	A small crack was discovered in a 2 inch piece of pipe at MLV 30-4 near Rapid City MN. The pressure was reduced to 80% The piping was cut out and replaced using a weldolet in place of an extruded tee. The leak is inside the fenced area and there are no injuries & no fire. TransCanada contact: [REDACTED] s.19(1)
2008-030	While racking out (removing breaker to cut electrical power) electrical pump unit 4.3 in the line 4 switch gear cubilce, the electrician made contact with live power and was electrocuted. Other workers on-site immediately gave CPR and contacted EMS. The electrician succumbed to the injury Karen Duckworth is investigating for CLC. Shane Richardson is investigating for NEB.
2008-034	While conducting a hydrotest between MLV 100 and 110, a worker discovered a gas release at the line 1 suction side valve on the upstream side of the compressor station. The tubing was isolated and the release was stopped. The company suspects the release a result of frost heave and will be daylighting the valve.
2008-037	While conducting a fugitive emissions test, TCPL workers detected a leak from a cracked pipe nipple on a riser. The riser was depressurized and the nipple replaced. The volume lost was negligible. No impact on deliveries, no environmental effects, no injuries.
2008-039	At approximately 07:00 MDT an estimate 4.0 m3 of crude oil was released from a failed valve on a pig sender on the Wascana Pipeline, Regina, SK, The oil was released onto the company's storage yard (NW 33-17-19 W2). The oil has been contained on the company's property, a vacuum truck and steamer are on site and the contaminated soil is to be removed to a third party waste treatment facility today, 22 April 2008. There are no nearby residences (Regina industrial area), no reported injuries reported and no environmental effects anticipated. Plains Marketing has also reported the release to Saskatchewan Energy and Resources, Saskatchewan Environment and Environment Canada. Plains Midstream contact: [REDACTED] s.19(1)
2008-040	[REDACTED] Director Gas Injections, reported to the TSB that a leak of sour natural gas was discovered at Receipt Point 2632, KP 15. [REDACTED] (approximately 6 km north of Charlie Lake, BC) on a 26" Alaska Hwy raw gas pipeline, . The leak was on a 4" isolation valve in a 1/2" body bleed. Responders bled down the valve and replace the body bleed by 22:45 PDT. One family left the area of their own accord due to the smell of sour gas. s.16(2) s.19(1)

2008-041	<p>At approximately 12:00 noon PDT, while testing a line break valve at Km 12 of the Goodrich liquified acid injection gas line (80% H<sub>2</sub>S; 18% CO<sub>2</sub>; 2% CH<sub>4</sub>) it was found that the valve would not close beyond 50%. Upon excavating the valve, staining of an unknown nature was discovered on the valve. The remaining valve sites on the 30 km pipeline were inspected and two additional valves were found to have staining. The valves are equipped with H<sub>2</sub>S detectors which were not activated and did not record any presence of H<sub>2</sub>S. As a precaution, the line was taken out of service on 15 April 2008 and could remain out of service for up to 10 more days (to 5 May 2008). Reporting was delayed as it is uncertain whether there was any release of product.</p> <p>WEI is testing the first valve and will decide whether to replace the valves in question.</p>
2008-043	<p>During a controlled flare off, a flare was used to ignite the plume. The flare ignited, and overshoot the plume, also igniting the grasslands behind the plume. The fire was extinguished in 15 minutes by company staff and contractors on site. Three acres of company property were burned. No evacuations and no danger to the public.</p> <p>Within approximately 30 minutes, the fire was extinguished by on site Enbridge personnel and contract staff using on site equipment.</p> <p>The installation of an electronic flare ignition system was planned for year 2009 such that a flare pistol and signal flare would no longer have to be used.</p>
2008-045	<p>Contractor while working in the area noticed a release of oil ( approximately 3m<sup>3</sup> ) (Cold Lake Crude) at a 1" hose that was attached to a sump pump. The contractor notified the controller to shut down and isolate the line immediately. Enbridge responded and a vacuum truck was used to clean up the spill.</p> <p>The failed hose was replaced. All contaminated soil was removed and transferred to a registered disposal facility in accordance with the Enbridge Waste Management Plan.</p> <p>To prevent similar incidents in the future, Enbridge Facilities Integrity Department planned to issue an incident update to field and construction staff describing the results of the lab investigation including C-FER Technologies' recommendations for inspecting similar installations and to remind them about proper installation methods.</p> <p>Location of Incident: Pump station @ Herschel Sask. MP 257 Pipeline #3</p>
2008-048	<p>Estimated loss of 7m<sup>3</sup> of crude oil at existing excavation site at #4 metering system. Crude oil was discovered and a faulty thermal relief valve on the metering system is suspected as the cause resulting in the release. All the product was contained on Enbridge property and Enbridge has initialed gathering spill crude with a vacuum truck.</p>
2008-049	<p>Spring thaw resulted in the island being flooded with flowing ice. The flow line was isolated and purged as best as possible on 12 May 2008. The line was monitored in the a.m. of the 13th and the leak was detected. Ice pushed up against the flow line during break up resulting in the leak. Floating ice and water makes recover of oil a safety concern at this time. An undetermined amount of emulsion was released.</p>
2008-050	<p>A gas leak was discovered coming from the fuel gas line from the plant to the river water pump house. The pipe is a small diameter 1 km pipeline on facility property. Employees working in the area noticed bubbles in a puddle of water. The line was closed, purged, locked out, and will be daylighted and repaired.</p>
2008-051	<p>As a result of river flooding on Bear Island, the 0-46 pumpjack gearbox has been partially submerged resulting in a lube oil sheen on the water surface. There is no free fluid associated with the incident. Volume estimate, less than 3 L, is calculated based on extent of the sheen (31.5 m<sup>2</sup> - observed from a helicopter) and assumed sheen thickness. High water levels and current preclude any product recovery.</p>



2008-052	<p>At the Emerson sales Meter station on MLV 404 the auxiliary power unit caught fire. The unit self extinguished and the company is investigating. No injuries, release of gas or interruption in service.</p> <p>TCPL contact: [REDACTED]</p> <p style="text-align: right;">s.19(1)</p>
2008-053	<p>There was a sulphur spill from the 3B condensor at the McMahon Gas Plant. About 50kg of molten sulphur was spilled on the ground from a leak on the shell of the manhole. The sulphur hardened and was cleaned up. Repairs are underway. No injuries, No fire, and no interruption in service.</p> <p>Spectra Energy Contact: [REDACTED]</p> <p style="text-align: right;">s.19(1)</p>
2008-055	<p>3rd party noticed some leakage into swamp of oily substance from the Spectra Siphon booster station #14 near Fort St John, BC. and contacted Spectra at 13:15 MDT May 31. Spectra reported the incident to Darlene Rosenboom with the TSB at 1730 EDT May 31st.</p> <p>Approx volume 100 liters of used engine oil was lost from a decommissioned underground tank.</p> <p>Spectra contact [REDACTED] Site supervisor: [REDACTED]</p> <p style="text-align: right;">s.19(1)</p>
2008-056	<p>A tank mixer seal leaked causing a spill of 8m3 of oil that was contained within the tank berm. Enbridge immediately started clean-up. Vacuum truck recovered 6 m3 the evening of 5th June and the remaining 2m3 oil and soil mix is being recovered this morning. Nearest residence is about 1 km. No effects outside company property, no injuries, no public concerns, no impacts on deliveries.</p> <p>The mixer was removed, a blind flange was installed over the tank opening, and tank 3 was placed back in service. All free product was recovered to the system. All contaminated soil was removed to a lined storage area within the Edmonton Terminal, to be transported at a later time to a registered disposal facility in accordance with the Enbridge Waste Management Plan.</p>
2008-057	<p>The incident occurred 10 km northwest of the town of Maple, Ontario, at the Maple Compressor Station #130. Gas control called for Unit 4 to come on-line. The operator at the Maple station attempted to start the Clark reciprocating compressor and received a low lube oil alarm. Upon investigation the operator found a gas leak from the discharge piping from unit 4. There was a through crack of about 2" in length adjacent to a weld, located at a 90 degree elbow. The building was evacuated, locked out and piping depressured. TCPL is investigating further. TCPL estimates the gas volume lost to be negligible. There were no injuries, no damage to equipment, no environmental impacts and no impact to deliveries.</p>
2008-058	<p>A backhoe was pulling a temporary bridge over a creek when a hydraulic pressure line blew and about 250 ml of hydraulic fluid entered Mohannes Stream with some fluid also being released on land. A boom and absorbent pads were immediately deployed and all contaminants were removed. No contaminants migrated downstream. The stream was at high water, but at low flow. The Coast Guard and the Provincial Department of the Environment were informed.</p>
2008-059	<p>A pressure drop on a meter was observed at the Central Processing Facility. The line was immediately shut in. Investigation verified a spill of approximately 2.06 m3 of produced water from a flow line. A Vac truck is on site removing the free fluid. Spill is contained on site. Imperial has updated as of June 12, 2008 @ 14:00 MDT the spill to be approximately 9m3. Imperial is washing the area and cleaning up site with a vacuum truck.</p>

2008-060	Area resident called TCPL to report a noise coming from the facility. TCPL dispatched a technician to the site. Upon arrival noticed that a 2" fuel gas relief valve on the 34D compressor station on the mainline was venting. An investigation is pending to determine the cause of the valve activation. It is estimated that the valve was open for approximately 4 hrs. A report is to be filed with TSB. There were no injuries, no evacuation and no outside parties involved.
2008-062	TCPL reported an enclosure fire occurred at the rear end of a power turbine at the Moyie Compressor Stn 2B, D-Unit when a scavenging pump did not effectively remove oil and some of the oil migrated into the insulating cladding and ignited at 20:06 PDT. All safety devices functioned; the CO2 fire suppression system discharged; and the emergency shut-down was initiated. No major damage. No injuries. No public or environmental impact. No disruption to deliveries. The fire was contained within the enclosure. Pump is being checked for needed repairs and should be back in service in 36 to 48 hours after the fire. TCPL contact: [REDACTED]
2008-063	A mechanic working for Greg's Contracting Services was on route from Hershel, SK to Biggar, SK to pick up parts for a job. The worker lost control of the vehicle which slid into the ditch and the worker was injured fatally. The NEB has started an investigation. No one from NEB has been dispatched to the site at this time and the NEB EOC has not been activated.
2008-065	The 20 inch Grizzly Valley Pipeline has been operating at just under 10% over the MOP since some time in March. Westcoast has been monitoring the line since March and started to analyze the data on the 26th of June. Today they decided the operating pressure met reporting requirements. UPDATE 8 August 2012: The greatest pressure excursion experienced was 8205 kPa (approx. 1.7% over MOP).
2008-066	The belt on a pump from a drilling hopper failed resulting in an overflow of 5.5 m3 Gel-Chem Drilling mud on approximately 20 m2 area. The spill was within the containment constructed for the drilling activity. Vacuum truck was on site and recovered free fluid from lease. Material released is a water-based fluid that has not yet come into contact with the wellbore. No adverse effect is expected and no additional remediation of the site is anticipated to be required.
2008-067	40 m3 of crude oil overflow by the roof vent on the roof of tank number 25 at Edmonton terminal as Enbridge was receiving crude oil from Syncrude. It appears that the oil contained residual of nitrogen which causes the oil to overflow. The tank was isolated, no additional product was released and roof was static (equilibrium). The clean up was underway and a vacuum truck was ordered. Enbridge monitored the odor around the tank farm and test results were that no odor was apparent. Enbridge emergency response was activated.
2008-070	Workers were investigation starting issues with a generator and discovered gas escaping from a 3/8" fitting between the fuel line and the upstream regulator. The generator was not running; no ignition; minimal product lost. The fuel gas line was closed and the remaining gas was vented. A 3/8" nipple broke 3.4" around its circumference. Fitting was replaced.
2008-071	Excavation was being conducted when coating damage and a scratch in the pipe was discovered. The scratch was determined to be mechanical damage and not a result of falling rock. No contractors have come forward to take responsibility. No product was lost.



2008-072	The operator heard venting from the station and determined the station pressure relief valve was venting. The valve had opened prematurely. The valve was isolated using a hand close off valve and reset to the correct pressure. During a planned shutdown of 15 July, the valve was removed and sent to the shop, inspected, reset, then reinstalled. The incident was discovered during a review of files. No threat to public; no environmental impact.
2008-075	2000 liters of diesel over flow within a containment area at the Edmonton terminal when Uniman's employee was transferring diesel from the contractor 1000 gallons tank to an electric generator. The preliminary information is that the employee was not paying attention. Detailed report to follow. Uniman is a coating contractor working for Enbridge. No danger to the public. Cleaning in progress and contaminated gravel is place in bins.
2008-076	While loading a truck onto a cargo barge the deckhand's legs were pinched between the truck and a tool box. A truck was backing up onto a cargo barge which is transporting supplies and materials between the main land and Goose Island. The deckhand was directing the truck driver onto the barge and the driver lost sight of the individual. The paramedic on site examined the deckhand which was transferred to the public nursing station in town. A physician on site took x-rays and there were no broken bones. The individual suffered bruising on soft tissues and will be returning to work on light duties (desk work) on Sunday.
2008-078	TCPL personnel entering the compressor station discovered gas venting through the 1/4" relief valve on the first-cut regulator on the domestic fuel skid. The gas supplies fuel to the primary power unit. Gas was venting inside the valve enclosure. Actions taken: isolated fuel gas skid, depressurized piping, opened valve enclosure to let the gas dissipate, opened second run (backup regulator) to fuel gas skid. Regulator failure is suspected. Regulator will be disassembled and examined to determine the cause. No emergency response was initiated. There were no injuries and no threat to the public.
2008-079	An LPG gasket failed resulting in the release of propane. The hydrocarbon sensor detected the release.

2008-080	<p>Unexpectedly a parked sideboom began to roll down a slight incline. The operator attempted to access the cab via the track to apply the brakes and slipped falling backwards onto the track. The operator was drug through a space of ~ 7" and sustained multiple fractures, "disabling injuries" as defined under CLC 15.1; 3 pelvis fractures, 6 ribs, sternum, cheeks and jaw, the operators tongue was also severed off. Operator was hospitalized for 2 months. Investigation deemed to be Provincial, then determined to have occurred on NEB ROW, and orders given to North American were rescinded by WorkSafe BC. This information was not shared with NEB Investigators. Investigation has since returned to WorkSafe BC as jurisdiction was deemed to be theirs. The site was secured, however 2 (two) North American and 1 (one) Kindermorgan employee entered the secured site and started up the sideboom to inspect the brakes. This was in violation of CLC 127. (1). Initial investigation was conducted by Henri Simoneau and [REDACTED] (Worksafe BC). Final NEB investigation conducted by Moira Schrader. Investigation ongoing.</p> <p>Initial call from TSB stated that a side boom operator had fallen from a sideboom tractor and was medivaced by helicopter to Jasper, Alberta. Upon calling Trans Mountain, it was learned that a side boom tractor operator (North American subcontractor) had set the brake on the side boom tractor and when dismounting, the tractor moved. The operator fell between the boom and the ground and was stuck in the face by the boom. This resulted in a broken jaw and nose. The company emergency response plan was activated and the injured eoperator was transported via helicopter to the Jasper hospital.</p> <p>A mechanic had made recent repairs to the brakes earlier in the day. Trans Mountain was advised by the NEB to ensure Worksafe BC (WCB) had been contacted. The RCMP were called and responded.</p> <p>The site has been secured. s.19(1)</p> <p>NEB EOC has not been activated.</p> <p>The NEB will be dispatching a health and safety officer to investigate.</p>
2008-081	<p>A pipe fitting failed on a power turbine lube oil skid that caused oil to leak/spray on the hot surface of the turbine which ignited the oil resulting in an emergency shutdown of the station. A large amount of oil also leaked onto the floor but was contained in the building. Upon contacting TCPL it was determined that no one was onsite at the time. it was a flash fire, not sustained, that self-extinguished without any foam or First Responders attending. It was detected through SCADA and all their shut down systems functioned properly. The extent of the damage is still to be determined but appears limited to some discoloration on the insulation blankets. Approximately 200 gallons of Turbine 32 Mineral Oil was released onto the floor of the building, with the majority contained within the 4" curb. However, a small amount did leak through the man doors onto the gravel just outside the building and is being cleaned-up by the company at this time. The company advised they hope to have the compressor up and running by tomorrow.</p>
2008-082	<p>Two cubic meters of crude released and contained on Enbridge property. Cause unknown at the time of report to TSB, the line was shut down and Enbridge personnel on site. Upon contacting the company it was determined that the spill was discovered by Enbridge employees when they arrived at the site for other work. The line was shut down and they dug bell holes and weeping trenches. A hydrovac was used to assist in the clean-up and recovered almost two cubes of crude. The source of the leak was a 2" sump line on which external corrosion had occurred due to coating failure.</p>



2008-083	<p>Line #1 was being pulled down and at 500psi the valve tripped. The end of stroke valve failed to close and shut off the gas supply. As a result, gas vented through the 1/4" vent. Company estimated that it was venting for 24 hours, no injuries, no environmental impact, no danger to public and no chance of ignition as it was below LEL. The product was Sweet Natural Gas and approximately 2390 cubic meters were released. The incident was reported to the company by TransGas which has a facility nearby. TransGas also notified the local fire department. TCPL Gas Control dispatched the local on-call technician who found power gas venting and closed the valve to isolate the line. At this time the company assumes the valve was contaminated which caused it to fail. Upon contacting the company, it was determined that the local Fire department did attend and provided scene containment until the technician closed the valve. They now estimate the line was venting for 36 hours before being shut down. There are no plans to dismantle the valve at this time, as the line is being taken down. However, it has been tagged and will not be put back in service before repairs are made.</p>
2008-084	<p>A contractor was walking a cat between Enbridge sites for integrity dig work near MP 252 on mainline. The cat started to smoke from under the cowl, the operator shut it down, he left the machine and then the cat started on fire. The operator used an 30 lb extinguisher and had the help of a local farmer to put the fire out. Extensive damage to the cat. The operator had a sore hand, went to local hospital and was released without treatment. There were no other responders, the fire was contained to the cat, no environmental damage, no other injuries. Enbridge was not sure if this was reportable.</p>
2008-085	<p>An electrical ARC and small brief fire occurred during a running test on the motor of a new pump. The high voltage electric ARC triggered the main breaker and shut down all 3 pumping units of the Mildren, SK pumping station. Enbridge is in the process to commission a new pump on the line 4. The driven motor was uncoupled from the motor and Enbridge was doing a running test of the motor. There was a flash and small brief fire occurred in the contactor cell. Two pumps were out of service for three hours. The third pump is still out of service at 08:00 on September 5th with no estimate time to put it back in service. The incident is under investigation to find out the cause. No one was present in the switch gear building at the time of the incident. No injuries and no impact on service.</p>
2008-086	<p>TCPL reported a release of sweet natural gas at an integrity dig location as a result of a small corrosion pit in the 6:00 o'clock position on the pipe. TCPL conducted an in-line inspection of the 9-100-1 mainline during Q1 2008 and identified defects in the pipe at MLV50 + 11 km near Vermillion Bay, Ontario. The pipe was daylighted and found to be resting on bedrock. The crew was in the process of air lifting the pipe to examine the defect when the leak occurred. During the lift, LEL readings of 3.6 % were detected and the crew immediately evacuated the trench. The operating pressure was reduced to 2510 KPa (40% of MAOP) and the pipe was gently set back down in the trench. The leak was reduced to a minor gas trickle and remained stable. TCPL suspects a corrosion pit, this is not a rupture. TCPL indicated that this is asphalt coated pipe, constructed during 1957-58. TCPL is evaluating whether to blow down the line or to use a portable gas transfer compressor to remove the gas from the line prior to repair. As the conditions at the site are wet, it may be difficult to move in a portable compressor, therefore TCPL expects this will be a blow down operation. No volume of gas was reported but TCPL expects it has been minor. The location is in an unpopulated area, and the site has been flagged and fenced. There were no injuries, no environmental impacts, no other responders, no product that left TCPL lands and no public interest. NEB staff requested TCPL to call the incident line to keep the Board apprised of the blowdown operation, repairs and any further developments.</p> <p>TSB Contact: Rob Johnston TransCanada contact: [REDACTED]</p> <p style="text-align: right;">s.16(2) s.19(1)</p>

2008-087	A dump truck struck four overhead pipelines, denting 3 lines and puncturing one butane line. Less 100 litres of butane were lost. A contractor hauling sand hit four pipelines with a dump truck. The driver did not notice a first that he hit the pipelines. However, on his way back using the same road he noticed a stain of approximate 10 square feet on the road and that a pipe was dripping. He called in the incident. Spectra Emergency Response was activated. A 250 feet safety zone on either side was implemented. The line and the butanizer were depressurized and the product rerouted. LEL measures were taken. In the afternoon when there was no danger of ignition source, 5 cubic meter of contaminated soil was removed. Projected repairs: 100 feet of the line to be replace on each of the four damaged pipelines. No interruption of service. The nearest public road (Alaska Highway) was at [REDACTED] m from the incident. Before and after pictures on the incident site will be forward to the NEB over the weekend. Note: This incident is classified as a Level II due to the fact that the Spectra Emergency Response was activated. The NEB EOC was not activated and no Emergency Response officer was dispatched to the site. s.16(2)
2008-089 s.19(1)	[REDACTED] of TransCanada Pipeline reported that a contractor, VSA Groupe Conseilling, while conducting an unauthorized excavation with a Cat model 320 (backhoe) struck the the 762 mm TQM '2000 Line' several times on 10 September 2008 (time not specified). TQM conducted a rapid incident tracking report. No initial leaks were found when the line was 'sniffed'. About 3 to 4 m of the line was damaged. The line was subsequently day-lighted and secured overnight with temporary a snow fence. TQM has requested a 20% D-rate (20% reduction in operating pressure). An investigation crew is to check the integrity of the pipeline tomorrow morning (12 Sept 08).
2008-090 s.19(1)	A landowner at [REDACTED] apparently used a piece of farm equipment to damage a vehicle belonging to an Enbridge-contracted Land Agent (Progress Land Services Ltd.). The land owner moved the Land Agent's vehicle from the approach to his property and damaged the front and rear bumpers and the steering assembly. The vehicle is to be examined to determine an accurate assessment of the damage. Prior to the incident, the Land Agent and a representative of the Manitoba Pipeline Landowners Association were viewing the ROW along [REDACTED]. It was initially stated that the RCMP was notified, however, that was not the case.
2008-091	On 15 September 2008 in the afternoon (specific time not yet determined), a contract-employee was injured while loading pipe on a truck at the Emera-Brunswick pipe yard on the north side of Highway 1, Pennfield N.B. (not on ROW). When cinching the tie-down strap, the strap broke and the employee fell backward, breaking his tibia. However, the fibula is not broken as initially reported to the TSB. The employee was taken to hospital and the injury is still being evaluated for a possible cast.
2008-092	Kinder Morgan reported the incident directly to the NEB. On 16 September 2008 around 17:00 PDT, a worker employed by Testco suffered a broken ankle on the pipeline project. The pipe was being set up pipe for the hydro test. Two sections about 25 feet each and about 10 inch in diameter were involved. One section was set on a pipe stand plastic style cone about 36 inches tall the other section was on the ground. The worker was standing between the pipe sections, not straddling the pipe with one foot planted between both, as previously reported. The pipe on the stand fell off the pipe stand and struck and broke his ankle. The worker was taken to Jasper by ambulance for x-rays and further evaluation.
2008-095	Uncontrolled leak @mainline 45-1 + 17. [REDACTED] km East of Falcon Lake compressor station. During a planned investigation dig on Line 100-1 to locate a dent, the inspector while durinhg a periodic leak test, discovered a small leak area. Dig was shut down and the area evacuated. Intial reading was 20 ppm of sweet Natural gas. reading rose to 294 ppm. Pressure was reduced to 2713 kPa (30% of Specific Minimum Yield Strength). TCPL is waiting for a gas transfer unit to reduce the pressure further and then vent the remaining gas. This is expected that will be early next week. There were no injuries, no ignition and the area has been isolated and is remote.



2008-097	While conducting its corrosion diagnostic testing program, a TCPL maintenance staff noticed the top of an electrical pole was burned. Inspection showed that there was damage to the rectifier box on the pole, TCPL suspects that water entered the rectifier box, causing a short which ignited the pole. TCPL has contacted the utility and repairs are underway. No injuries, no environmental damages, no other responders, fire was contained to TCPL lands.
2008-098	A sheet of plywood left behind by a sand-blasting crew was knocked into a valve by a loader operator, causing a release of a small amount of natural gas from a 1/2" pipe fitting on 20' or 24" valve . TCPL's immediate action was to stop work at the site and evacuate the immediate work area. Two TCPL technicians performed a job safety analysis (JSA); then tried to grease the valve but the leak increased rather than slowed. The technicians terminated their process. Line 100-2, between MLV 34-2 and MLV 36-2 is empty and parallel line is pressurized. TCPL plans to depressurize one line and re-pressurize the other line in an attempt to get the valve to re-seat and stop the leak. If this does not work, TCPL will have to depressure (vent to atmosphere) 9 km of line to access the valve for servicing. Site around the valve was filling with water (no explanation provided). TCPL will provide an update tomorrow, 17 October 2008. Nearest dwelling is 1 km away. No injuries, no danger to the public.
2008-100	Release of approximately 15 cubic metre of produced water leaking for a flange on the piping going to the well head. Looking at charts it appears that the pump was down, start again, down, start again, etc. .The employee has estimated two liters per minute at the time the leak was discovered. Leak was isolated and poses no further risk to environment or person. Investigation is ongoing and information will be provided when available. Meets reporting requirements as there is a risk to the environment.
2008-103	Trans Canada Pipelines Limited reported that at compressor station #43 in Spruce Manitoba, 60 km East of Winnipeg that there was an uncontrolled release of sweet Natural Gas from a pressure relief valve in "B" plant that released (as designed) on a 2" valve. Examination revealed that a Fisher Regulator Model #310 had failed allowing the pressure to exceed setting on the relief valve. The regulator was repaired without further incident at 14:20 MST November 3, 2008.
2008-104	Spill from a leaking fuel tank near N-13X well site. Approximately 150 litres of diesel fuel. Captured on frozen ground limiting soil contamination. No adverse environmental effects.
2008-105	Leak of 110 liters of Produced Water ( area of 2.25 m3) from a leaking gasket on the valve bonnet at the Lateral 3 isolation valve on the supply line inside the GIT Satellite building . Water froze on contact with ground. Area was accessible and 100% of product had frozen and not penetrated the ground. A drip pan is now in place to ensure no other leak will contact the ground.

2008-107	Landowner had a contractor digging a dugout on Saturday when the contractor contacted the pipeline and damaged the coating. The contractor backfilled the hole and moved to another location on the landowners property to continue digging. The landowner reported to the pipeline company two days later, on the Monday. The company has reduced the pressure from 5000 kPa to 4000 kPa (MOP 7067 kPa), will mark off the effected area then confirm leaks before excavating the visually inspecting the pipe.
s.19(1)	██████████ was assigned this file to follow-up from Steve Berthelet. ██████████ met with the contractor ██████████ owner LT Rock and Sand) and the pipeline company (██████████ - Director System Integrity) in regard to this incident on 18 and 19 Feb 2009, in Prince Albert, Sk and Regina, Sk respectively. Staff discussed this matter with the contractor to determine why this occurred and to talk and discuss next steps in order to avoid this type of activity in future. As well staff met with MIPL as to the results of staff discussion with Mr. ██████████ Staff are of the opinion that given our discussion with Mr. ██████████ he is well aware of the requirements for working around federally regulated pipelines and the procedures to follow. Copies of the meeting notes with details are attached at the multimedia tab. Discussions with MIPL suggest they would like NEB crossing staff to follow-up with the landowner involved at a later date. In staff discussion with MIPL on initial planning they suggested focus should be on contractor and then in meeting suggested the landowner should be spoken to as well.
2008-108	The company suspects that an unknown quantity of crude oil and produced water was released from the J74 to H03 pipeline. This was discovered when operators were at the J-74 well site and noticed vapours coming out of the ground. The operators assumed the pipeline was leaking and de-pressured the line. The following day they dug around the area with shovels and found nothing near the service. Head office is currently working on a plan to find the source of the suspected leak. This will start Thursday if conditions permit.
2008-108	The company suspects that an unknown quantity of crude oil and produced water was released from the J74 to H03 pipeline. This was discovered when operators were at the J-74 well site and noticed vapours coming out of the ground. The operators assumed the pipeline was leaking and de-pressured the line. The following day they dug around the area with shovels and found nothing near the service. Head office is currently working on a plan to find the source of the suspected leak. This will start Thursday if conditions permit.
2008-109	While attempting to clean a site port on a temperature scanner in the sulphur plant, the block valve did not seal resulting in the release of hot gasses. This caused the sheathing on adjacent electrical lines to ignite. The C sulphur train tripped; the fires was extinguished with portabe fire extinguishers; the side port was repaired and the train was restarted. The company is investigating. No injuries or impact to the environment or public.
2008-110	A valve was not close properly at the condensate loading facility. Ten m3 or 10,000 litres of crude condensate blend (1267) flowed onto the ground and was contained within the berm. A third party was contracted to vacuum, wash the area and remove contaminated soil. PEP was notified. WEI incident #7586.
2008-111	In the Train Three-Cooler Building (cooler bundles), there was a connection failure at the heading of one set of tubes. Approximately Ten m3 of Sulfinol leaked into the building, as well, approximately 500 liters escaped the building and leaked into the soil outside of pony wall surrounding the building. None of the product was able to enter ground water or left company property. A third party was contracted to vacuum product and remove contaminated soil. Spectra contact is ██████████ Environmental Specialist s.19(1) TSB Contact is Glen Pilon



2008-112	Staff were restarting a unit at the Compressor Station after a overhaul when they detected a small oil leak that sprayed onto the PT. A small flash fire started but was immediately extinguished with the use of a 30lb fire extinguisher. No damage to equipment and no injuries. No outside agency involvement. Reported to Darlene Rosenboom at TSB. Spectra contact is [REDACTED]
2008-113	A leak from a heating system caused a spil of 2000 litres of glycol. The spill was contained to the plant site, a vacuum truck cleaned up the spill. No enviroanmental damages, no injuries, no other responders. Company contact is [REDACTED]
2008-114	TCPL Line #1 was being backfilled with shading sand when a lump of hardened sand rolled downgrade and made contact with a pressurized body bleed valve. A very small amount of gas escaped from the PLIDCO valve. Equipment was immediately shut down and non-essential personnel evacuated. Inspection of the valve determined it was open about 1/4 turn due possible from ice build-up. The volume of gas release was miniscule. No injuries, no environmental impact, no danger to public and no other responders to the site. Location of incident was at the TCPL Steinbach Sales Meter Station about 42 km east of Winnipeg.
2008-115	Spectra was starting the Unit 3 compressor on the Kobes gathering system when the generator backfired causing the inlet suction screen to catch fire. A fire extinguisher was used to immediately put the fire out. Spectra is investigating the cause of the fire. No injuries, no environmental impact, no danger to public and no other responders to the site. Location is near mile 101 on the Alaska Highway B.C.
2008-118	The Westcoast 26-inch sweet sales gas line that runs from Station 1 at Taylor B.C. to Gordondale Alberta received out-of-spec gas that contained up to 32 parts per million (ppm) H2S in the gas stream. When the gas was received at Gordondale, the Alliance Pipeline and TCPL Pipeline systems at Gordondale alarmed and shut-in the 26-inch Westcoast pipeline at the receiving end. The alarm went back to Westcoast gas control and Westcoast activated its emergency response plan, set up its emergency operations centre, contacted Alliance Pipeline, TransCanada PiepLine, Pacific Natural Gas Ltd., B.C. and Alberta provincial agencies and other pipeline operators in the area. Westcoast commenced a controlled venting of the gas from the 26-inch pipeline at Gordondale. Westcoast stated that Gordondale is a remote locaiton and the closest resident to the Gordondale location is greater than 5 kilometres. The venting was completed by approximately 11:40 PST. There is not estimate at this time as to total volume vented. Westcoast also continues to monitor H2S content of the gas in the pipeline by taking gas samples at valve locations and using Draeger units to determine approximate ppm content. At no time was the public or company personnel at risk from the incident and no evacuation or public contact was required. Westcoast has not received any calls from media or the public. Westcoast is investigating the source of the H2S and the cause for the H2S to enter the 26-inch sales line. There were no injuries, no evacuation by the company, no non-company first responders, no media or public interst and no other agencies that responded.
2008-119	On discharge piping of compressor #5 a 1 X 2 1/2 inch nipple fractured resulting in a gas leak inside the compressor building. The leak was detected by the gas detector,triggering automatic shut down and venting of the building. No injuries, no danger to public and no other responders to the site. Unknown at this time how much product was released. Spectra is currently investigating the cause.TSB Contact: Glenn Pilon WEI contact: [REDACTED]

2008-120	A technician heard an audible gas leak and determined that a grease nipple had cracked. The swedge nipple and valve assembly were installed at a 90 degree fitting on the valve. The swedge nipple was 1/4 to 1/2 inch in size. The assembly was in a dry well filled with frozen water, the freezing action cracked the fitting, causing gas to release. The ice was melted and the nipple was greased, stopping the leak. The swedge nipple and valve assembly were replaced as a short term solution. TCPL to extend pipe above ground in the future. No injuries, no danger to public and no other responders to the site. Unknown at this time how much product was released.
2008-121	A dredge unit attached to a barge was operating approx 100 meters off of EnCana's land-fall area when the bucket system attached to the barge had a mechanical failure. The bolts holding the cap of the cylinder sheared, causing the packing of the cylinder to fail and the hydraulic fluid contained in the cylinder and lines emptied into the moon pool (approx 15 litres). Absorbent pads were used to p/u 85-90%. The product is Chevron Clarity Hydraulic Oil and is completely biodegradable. Encana originally reported the incident to the Coast Guard. Rick Turner from the NEB is onsite this week and advised the company that this was reportable to the NEB
2008-122	Westcoast personnel at the Pine River Gas Plant discovered a small dripping sulphur leak on an expansion joint connected to a vessel re-heater. The liquid sulphur would ignite upon escaping the leak site. The sulphur accumulated and solidified on the ground, about 20 kg of sulphur at the time of discovery. The fire was very small and was extinguished soon after the drip was found. Westcoast is in the process of removing the pipe cladding and insulation to expose the leak and its engineering team are currently planning the repair. The spill and fire were contained to the plant site, no injuries, no environmental damages, no other responders.
2008-123	While a contractor was working on the construction of a new tank at the Enbridge Edmonton Tank Farm, the contractors' air compressor caught fire. The unit was outside of the tank and workers immediately responded with fire extinguishers, however, the fire was large enough that it destroyed the compressor. The compressor was a small unit, mounted on a two wheel trailer that is pulled behind a pickup truck. The value of the unit was between \$8,000 and \$9,000. The manufacturer, Ingersoll Rand has taken the compressor to its shop where it will investigate the cause of the fire. The fire was contained to the site, no other responders were required, cleanup of the fire extinguisher fluids is underway, no injuries and no impact on deliveries. Company contact is [REDACTED] s.19(1)
2008-128	On three occasions in 2008, a minor underground gas leak was discovered on station property. The company suspected a release of swamp gas; however, when the area was daylighted it was discovered that frost heave had caused cracking at: 100-2 discharge side valve body vent, NPS 2 purge and pressurizing line and the common power gas supply manifold piping. Upon discovery of the first leak, the station was isolated. Repairs were completed on 14 December 2008.
2008-129	During a bleed in procedure, TCPL personnel noticed some water bubbling around the MLV downstream tie-over. the bubbling slowed down after the valve was cycled to the fully open position. The valve has been left in the open position until the valve is daylighted at the end of January. There is no danger to the public.
2008-130	A sub was being picked up with tugger #1 from the corner of the rig floor and being brought to the hole centre for make up. The IP was guiding the sub off the sub rack when the driller that was running the tugger controls, noticed that IP's hand was coming close to the controls for tugger #3. He kept picking up the sub higher and the IP lost his balance and control of the sub resulting in his left hand being crushed between the float sub and a collar racked in the derrick. His index & middle fingers were injured. He was taken to the medic and it was cleaned and dressed. IP was flown to Inuvik the next day because of shift change and decided that as he was in Inuvik he would go for x-rays. The x-ray indicated a cross fracture of his left middle finger tip. No other treatment was given.



2009-002	<p>A leak of sweet natural gas had occurred that shut down the station compressor unit on high LEL. There were no injuries and no danger to public. Field personnel were dispatched to investigate a shutdown on high gas alarm. Operator found broken Thermoweld on compressor discharge casing. Compressor case vented normally then RTD and Thermoweld were replaced. Unit was restarted without incident.</p> <p>The Thermowell and RID were replaced and the station was returned to normal functioning.</p> <p>An 8000 hour inspection program is to be instituted for the C601 Thermowells which cannot be relocated to the suction/discharge pipe. Thermowells which can be relocated to the pipe will be changed out.</p> <p>No detailed incident report (DIR) was provided by TCPL regarding this incident. However, it is the opinion of the investigator that all other documentation (IRs, email correspondences, PIR, etc.) associated with the incident has provided adequate information to close it out. It is therefore recommended that the incident be officially closed out.</p>
2009-005	<p>Leak of approximetaly 50 - 100 liters of oil leaked from flow line on Bear Island due to freezing. Spill occurred near the bank of a water body, however the line is isolated and containment trays and other measures are put in place to ensure the spill does not reach the frozen water body.</p> <p>Contacts</p> <p>IORL: [REDACTED] Environment Lead [REDACTED]</p> <p>IORL: [REDACTED] Ops Superintendent [REDACTED] s.19(1)</p> <p>Incident reported to the NT-NU 24-Hour Spill Report Line: 867-920-8130 [REDACTED]</p>
2009-008	<p>NT-NU Spill line reported &lt;75 litres of Production Emulsion spilled along the K-50 flowline at Bear Island. Most of the spill was released more than 30m from a water body. However, a small amount, less than 10L was released about 10m from a water body. There are no anticipated environmental effects from this spill and no anticipated difficulties with the clean-up process. Cause of spill not identified, unable to reach IOR contact at the time of this report.</p>
2009-009	<p>Incident occurred at the Waschuk yard (Prime Contractor) near White City. A semi tractor was backing up to a trailer when a Waschuk employee was pinned between the units. The employee was transported via ambulance to hospital in Regina. Initial indications are that the employee suffered a severe fracture to one leg. Saskatchewan OHS attended but have released the scene back to Washcuk - NFI. [REDACTED] Project Safety Supervisor for Enbridge is enroute this evening from Edmonton. He has ordered that the scene be secured until he receives further information from the NEB.</p> <p>Contacts</p> <p>[REDACTED] Project Safety Supervisor Enbridge [REDACTED] s.19(1)</p>
2009-010	<p>A release of sweet natural gas in C-Plant Bldg was detected by Gas Control in Calgary by a high gas shutdown alarm. Two employees were dispatched and found a supply filter housing support bracket had broken and caused the supply tubing to separate from its connection and fuel gas to enter the building. They isolated fuel gas run #2, replaced the bracket, repaired the tubing and returned the plant to service. No fire, no injuries and no danger to public. Negligible amount of gas released.</p>
2009-012	<p>Environmental release of 475 litres of 60/40 glycol/water mix from the heat trace system. at the Imperial Norman Wells Central Processing facility. Spill has been isolated and work is being planned for cleanup. Contact is [REDACTED]</p>

s.19(1)

2009-015	<p>While working at a pig launching facility at Mile Post 111 on the Westcoast 18" Alaska Sour gas pipeline, a failure occurred which resulted in the release of an unknown volume of sour gas. Two employees were on site, were under auxiliary air during the incident and were overcome by gas. The employees self evacuated from the site and were then transported to the Fort St. John Hospital where they were observed. The two employees are conscious and are expected to fully recover. Westcoast immediately activated its emergency response plan and its emergency operations center in Ft. St. John. Westcoast has contacted the BC provincial emergency program, RCMP, Transportation Safety Board and the BC Oil and Gas Commission. The incident occurred in a remote location and no evacuation of residents or other persons was required. The RCMP have closed the Alaska Highway until the area is safe for travel. Westcoast also dispatched a helicopter to conduct areal reconnaissance. The TSB has dispatched an investigator and the NEB has dispatched an inspection officer and a health and safety officer. The facilities have been shut-in and isolated by Westcoast and as of approximately 10:45 MST gas was no longer being released. Westcoast continues to monitor for residual gas and is working with the RCMP to open the highway. There is some local media interest.</p> <p>Upon receiving the incident report from the Transportation Safety Board, the NEB assessed the incident and determined it to be a level II for the following reasons:</p> <ul style="list-style-type: none"> <li>- there were injuries sustained by two company employees</li> <li>- the sour gas left company property</li> <li>- there were third party responders dispatched (RCMP)</li> <li>- there is some media interest.</li> </ul> <p>The NEB activated its emergency operations centre at approximately 09:20 a.m.</p> <p>NEB staff have been dispatched to the site and will coordinate their investigation activities with the Transportation Safety Board, Westcoast and other agencies.</p> <p>At the time of the incident, both employees were blown back from the pressure of the gas being released and their air masks may have been moved, resulting in the exposure to gas. One employee will be held overnight at the Ft. St. John Hospital for observation, the other has been released. Westcoast has indicated that the cause of the incident is related to mechanical failure. However, the RCMP will put together a plan to determine if there were any external parties involved in the incident. The Alaska Highway opened at 11:15 MST. The emergency condition was stood down by Westcoast at 11:30 MST. The NEB stood down its emergency operations centre at 11:40 MST. The NEB will continue to monitor the status of the incident, the condition of the Westcoast employees and it will continue its investigation with the TSB, Westcoast and other agencies.</p>
2009-019	<p>Nipple on a turbine failed causing 2500 L (2.5 cubic metres) of lube oil to leak out into building. The spill was contained to the building and has been cleaned up. No injuries, no risk to public.</p>
2009-021	<p>A technician discovered gas venting from a discharge valve crossover tubing (broken sensor line) at the compressor station, which is approximately 10 km northwest of Iroquois Falls, ON. Sensor line was isolated and supply gas turned off. Technician to return later today to effect repair. Unknown gas quantity released. Nearest residence about 1 km east. No risk to the public, no injuries, no environmental damage.</p>
2009-024	<p>A company employee, a gauger, was travelling from the Sarnia Terminal to the Shell Refinery when he drove off the road on a curve and entered the ditch. The gauger was engaged in work at the time. It is unknown at this time why he went off the road as he was discovered in the ditch by persons unknown and the police and emergency personnel attended the scene. The worker was taken to the Bluewater Health facility in Sarnia. The police called Enbridge control which started the Enbridge internal call process with the workers general manager finally being reached. TSB reported that the person was found unconscious and may have broken bones (ribs). Enbridge is unsure if this incident meets the requirements of the OPR and reported it to ensure due diligence.</p>



2009-026	Small Sour Gas leak noted on 10" Dahl Pipeline meter station CNRL on 23 March 2009. Reported to TSB at 18:30 EDT Investigation determined 1/4" nipple on check valve was leaking. Unit was isolated and nipple replaced and returned to service. Spectra contact: [REDACTED] No injuries.
2009-028	An employee noticed accumulation of discolored ice under sewage line near sewage tank at CPF office building. Site is being cleaned and no adverse environmental effects anticipated. Approx volume: 50 liters. Contact: [REDACTED]
2009-031	Employees noted the odour of H2S gas and determined that gas was bypassing the isolation valve going to the flare line at the Lower Murray pigging barrel site. The valve was isolated and Spectra employees are now servicing the valve. Amount of the release is unknown but employees believe that it was a very small amount, due to the H2S not being detected by the onsite instruments. No fire, no injuries and no danger to public.
2009-032	During an M12 facility inspection, a leak of sweet natural gas was discovered at Main Line Valve 92-2 inside of a valve hut. The gas concentration was measured at 20-50% LEL. Staff noted through a window that gas was coming from the power gas manifold lead on Line 100-2 Suction Valve which was severely "frost heaved". Staff removed four wall panels from the hut to lower the gas concentration. Entry was gained to close the power gas lead and install an alternative power gas lead. The yard has been isolated and a crew will re-tube the power gas lead tomorrow. No injuries, no emergency response, remote site and no danger to the public. Unknown how much gas was released.
2009-033	A leak was discovered on the flare line between the compressor and the flare pit after odor was noticed coming out of the ground.. An estimated 100 - 200 litres of hydrocarbons were released. Excavation is underway.
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2009-034	Workers changes the filters on the seal gas supply. Four days later when the unit was being put back in service, the workers discovered a broken one inch (NPS 1) stainless steel pipe. The unit was blown down and the filters unit locked out for repairs. No threat to people or the environment.
2009-035	While conducting maintenance work, smoke was discovered coming from under a previous repair patch on the #1 reactor top header and 3 to 4 litres of sulphur had spilled out of the cladding. When the cladding was removed, the liquid sulphur ignited. The fire was extinguished with water. As the work continued, one worker noticed a pain on his leg and discovered that his jeans had caught fire. Though he work FRC coveralls, the jeans were exposed below the cuff. The worker sustained a loonie sized second degree burn to his shin and did not require transport to medical aid.
2009-036	Incinerator stack (suspected pilot light) went out and H2S continued to flow without being combusted. Flow was shut off upon discovery, no noticeable or detectable impact at ground level. Calculated volume of .4 tons released. Weather aided in dispersion. No injuries, evacuation or first responders attended. Westcoast contact is [REDACTED]

2009-037	Due to a frost heave that had cracked threads on a HVAC supply line, there was a small release of natural gas. The supply line was isolated, the repairs were completed and the line was put back in service in a short period of time. No injuries, first responders were not required and no damage to the environment due to the negligible amount of gas released.
2009-039	A 3/8 inch high pressure tube on a fitting failed (blew out) at the NGTL Ben's Lake Compressor Station, near Vegreville, AB. Natural gas leaked into the compressor station building and the station gas detectors triggered an emergency shut down. The lone operator evacuated the building until the gas was vented. The operator carried out repairs and restored pipeline service. No injuries, no anticipated environmental effects, temporary service disruption. TCPL contact [REDACTED] s.19(1)
2009-040	At 22:00 a third party contractor cleaning a tank, reported to the Kinder Morgan (Terasen) Burnaby Control Room, a failure of a one inch fitting on the suction pump. Light sweet crude leaked at a rate of 100 cubic metres/hr from a 150,000 barrel (24,500 m3) tank into primary containment. Kinder Morgan notified the Burnaby and Metro Vancouver Fire Departments and sent Kinder Morgan staff to monitor vapours at the fence line. Leak was stopped at 3:25 MDT. The fire department started to apply foam to the spill from 6:00 to 8:00. File closed with environment remedial actions ongoing.
2009-041	,On 11 May 2009 a sweet gas leak was noted by aerial patrol at approx 8:15 MT on pipeline approx 14 km south of Valeyview, AB in farmers field. [REDACTED] Farmer's home is approx 4 km from leak. The area has been flagged off. Initial testing recorded 30% concentration @ ground, leak is not audible, 15% concentration @ 6" above ground, 80% LEL @ 12" above ground. Arrangements are being made with the landowner with a potential equipment on site scheduled for Tuesday 12 May 2009. TCPL contact: [REDACTED] s.19(1)
2009-042	Daphne Snelgrove of TSB called in at 1305 MST to report a TCPL sweet gas leak at Candiac, Quebec at Compressor Station 802 that happened on 7 May 2009 @ 9:15 MT. Calgary, Headoffice have just been notified 14 May 2009. It was inaudible of negligible amount from a valve stem. TCPL contact: [REDACTED] s.19(1)
2009-043	Rob Johnston of TSB called in to report that Spectra Energy at Fort Nelson Gas Plant had experienced a fire. Fort Nelson Gas Plant is located at mile 285 of the Alaska Highway. After stripping piping on the sulphur train; wooden planking from the scaffolding caught fire when the sulphur train reactor went into regeneration. Fire was noted by operating personnel and immediately extinguished. Contact: [REDACTED] s.19(1)
2009-044	A produced water line spilled approximately 100 m3 of produced water near the Imperial Dock along the MacKenzie River. The produced water entered the river. The leak occurred in an area not normally submerged but due to spring high water levels the produced water line was submerged. The line was isolated, and the leak contained. The Sahtu Land and Water Board and INAC were contacted. Imperial is still collecting information and an update will be provided when more precise information is available. The NWT spill line initially recorded INAC as the lead agency. NEB staff contacted the Spill Line and made the correction.



2009-045	The Sovereign Station is 5 km south and 17 km east of Rosetown, Saskatchewan. At approximately 05:00 a propane leak occurred from a 3/8 " tubing fitting connected to a pressure transmitter. At approximately 06:00 the leak was observed in the Control Room via on-site security cameras and the equipment was immediately shut-in from the control room. Kinder Morgan estimates about 5 imperial gallons of propane was released to atmosphere. There are no nearby residents, no injuries, no environmental impacts and no other responders were involved. Hydrates formed on the outside of the fitting and Kinder Morgan is waiting for it to melt before it can determine the cause for the failure of the fitting. Kinder Morgan was not sure if the release was reportable to the TSB, it called the NEB first and then contacted the TSB. The TSB, in turn, called the NEB incident cell.
2009-047	A small fire occurred on the train 3 acid gas scrubber pump at the Pine River Gas Plant near Chetwynd, B.C. The pump failed, overheated and then caught fire. It was immediately extinguished with a hand held extinguisher. The pump was isolated and is being examined. No product left the company property, no injuries or environmental impacts, no other responders and no public safety concerns. TSB Contact: Glenn Pilon, 613-997-7887 Westcoast Contact: <span style="background-color: #cccccc;">[REDACTED]</span> s.19(1)
2009-048	A leak occurred on a regulator diaphragm at the North Duncan Metre Station, 100 Km North of Lac La Biche. The leak was detected by sensors in the building. The regulator was repaired. There were no injuries.
2009-049	A technician was in the compressor building at the Berns Lake station when he noticed a hairline crack on a 3/8" differential pressure switch. The switch was isolated and replaced. TCPL estimates a negligible amount of gas was released. No environmental impacts, no injuries, no other responders.
2009-050	A flowline failure occurred at the Imperial Goose Island terminal #7. Approximately 300 litres of oil and 1700 litres of produced water were spilled over an area of 108 m <sup>2</sup> at the terminal. No fluids left the terminal area. Crew and equipment was flown in by helicopter. Oil is being recovered by absorbent pads and then stored in containers on site. Produced water is recovered and stored in tanks on-site. Imperial expects that all fluids will be recovered and placed in tanks today. Access to the site is being cleared of ice, then a cat and hoe can be moved in for soil removal. Contaminated soils will be moved to a storage facility until it can be transported off-site for treatment. No injuries, no off-site impacts, no other responders.
2009-051	Control ditch overflowed resulting in a spill of 120 l amine solution. Clean up was done with a vacuum truck. There were no injuries and no threat to the environment.
2009-053	Gas control received an alarm indicating a reading of gas in the compressor building. The compressor was shut down and a crack in the weld was discovered where a 1/2 " pipe connected to a 1/2 " nipple in the 12 " hot recycle line; repaired seal welding a plug in the nipple. Back in service 10:00 a.m. June 20th.
2009-054	A three inch domestic fuel gas skip ruptured. This is part of the system to bring pressure down from line pressure, 6074 KPa, to the building heating system pressure. (not for the compressor building.)  TCPL employee arriving on site noticed the leak. The line was isolated by closing the upstream valve.

2009-055	1.8 m3 crude oil was released from an inline valve on Line 9 at the Hilton Station. The oil was contained on site. Free product has been recovered. Line 9 is shut-in for repairs and is expected to be returned to service by approximately 23:00 EDT (21:00 MDT). Nearest residence in the rural area is approximately 500 m away. No injuries reported, no fire or other issues.
2009-056	Spectra Energy discovered a sour gas leak at 20:30 PDT on 27 June 2009 from an outside 3/8" tubing on a pressure relief valve at Booster Station 3 - Kobes Creek, B.C. The leak began sometime between 15:00 after personnel left the station and 20:30 when personnel returned; consequently the volume leaked is undetermined. The line was shut in for approximately 30 minutes and the leak repaired. The line was returned to service at approximately 21:00 PDT. There are no nearby residences to the Booster Station. There were no injuries and no other environmental impacts.
2009-057	Trans-Northern reported that a block valve at its Oka Transition, MP 29 from the Montreal Pump Station, shut down during thunderstorm activity in the Montreal area. Communication with the valve was lost at about 18:45 EDT and pumping continued for approximately 5 minutes before pumping was shut-down at Montreal resulting in an over-pressure circumstance (1240 psi vs. MOP of 1000 psi) on a 4-mile segment of its Montreal Line through Saint Eustache, Quebec. The 4-mile segment of line has the same specifications as the 10" line both upstream and downstream of it, but has been restricted by certificate to 1000 psi through the municipality of Saint Eustache. MOP was not exceeded elsewhere. A technician was sent to the site and disconnected the supply to the valve and manually opened the block valve. Product in the line at the time was gasoline.
2009-058	Nova Gas Transmission Ltd. notified the TSB of a confirmed leak and fire on its 6" Contracosta Lake Lateral near Hanna, AB and approximately 400 m from the Hutterian Brethren Church (Hutterite Colony). There was lightening in the area at the time of the event. A producer in the area contacted the Company's 24-hour emergency number. The Company in turn called 911. The Hanna Fire Department has been notified but is not confirmed to be on site. The line was isolated at 1:30 MDT. There 20 km between the valve sites and will take a period of time to bleed down. There are 2 Company personnel on site to keep the public at a distance from the site. Company indicates no injuries and no danger to the public.
2009-060	TSB advised that a pigging crew observed sour gas leaking into the muskeg from a 10 inch pipeline located 100kms NE of Fort Nelson. The line was presently being depressurized and no further information was available. Contacted the company rep who advised that when the crew arrived on site they noted "spitting foaming salt water gurgling up in the muskeg". It is a low pressure 10" line that is presently leased to PetroCan. The crew was on site two days earlier and did not notice anything at that time. Estimated that 1000 gallons of H2S gas/water mixture was released and the company reports that all is contained on the ROW. It is a very remote site that can only be accessed by air or ATV's in the summer. The company will fly in a an environmental specialist tomorrow to conduct a further assessment. At this time the company believes probable cause is internal corrosion of the pipeline. No injuries, no third party response and company is reporting spill is contained on ROW
2009-063	During a biweekly weekly operational check, staff detected a small release of sweet natural gas from a pneumatic switch on a 3 way reversing relay. Minimal product released and repairs to the switch have been completed.
2009-065	Description: The insulator blanket on the generator at the Wainwright compressor station caught fire. No injuries or third responders, fire was extinguished immediately with damage only to the blanket. There was no product lost and TCPL is investigating to determine cause.



2009-066	Pipeline rupture and fire on the 20" sweet natural gas mainline 30 miles south of Hay River near Rainbow Lake. Three company personnel are responding. No injuries and no nearby residents.
2009-067	Ken Miller of TSB called in an incident on Westcoast Energy operating Brunswick pipeline at Red Head meter stn in St John, New Brunswick. Leak was detected leak @ Odorant injection point back along threads. Planning to replace fitting in 2 to 3 weeks time when Canaport Plant shuts down. Contact: [REDACTED] s.19(1)
2009-068	Ken Miller of TSB called @ 1640 MST on 21 July 2009 to inform of a NGTL 36" Western Alberta System loop leak which was discovered on 20 July @ 1030 MST. Atco gas pipeline with TCPL discovered natural gas leak during inspection on 36" Western Alberta System Loop near Crowsnest Pass. It is a remote site with nearby local road. Closest land owner is 1 km away. 21 July 2009 probe down 3 feet into the ground recorded 100% reading natural gas. Suspect integrity issue with pipe fusion bond epoxy pipe which was built in 1989. this pipe has had no prior issues. Pipe can not be shut in. Currently the mop is 4680 kpa. Leak is not audible and gas is not moving any dirt from the probe hole. The plan is to ribbon off site, post a no smoking sign, Post security, Hand dig to expose pipe on Thursday 23 July 2009. Contact: [REDACTED] [REDACTED] s.19(1)
2009-070	Ken Miller of TSB called at 2:24 PM 22 July 2009 to inform of an incident reported by Kindermorgan. Incident occurred at 11:00 MDT 22 July 2009 at the Hardisty terminal on the Express Pipeline. Gibson personnel were operating heavy equipment and bucket struck above ground 24 inch oil pipeline damaging it by putting 2 gouges in pipeline. Pipeline was out of service at the time. No product released. Damage will be assessed tonight and the appropriate repairs will be done. s.19(1) Contact [REDACTED]
2009-072	Dan Holbrook of TSB called to inform of an incident on Westcoast Comp N4 station. Fire burned down a storage shed on 23 July 2009 @ 2100 MST. Suspect electrical. This is unrelated to the any release of product. Contact: [REDACTED] Mech TL Transmission north Tel: [REDACTED] s.19(1)
2009-074	While daylighting the Mainline 100 line at MLV #138, at Corbyville ON (north of Belleville), a 3 foot rock dislodged and struck the pipe causing a mark on the pipe. TransCanada indicates that there are no safety concerns. NDT investigation on the pipe is being carried out. TransCanada daylighted the pipe in order to lower the ditchline to improve water flow off a farmer's field.
2009-075	NOVA Gas Transmission Ltd. reported an approximate 2 minute venting of 1400 ft3 (40 m3) sweet natural gas at the Clarkson Valley, AB Compressor Station. A storm in the area knocked out power to the compressor station. The auxillary power unit initially engaged but then shut-down, resulting in the release of gas. Power was restored and the compressor and pipeline are running normally. There are no residences in the area, no injuries and no other environmetnal impacts. s.19(1) NGTL Contact: [REDACTED]
2009-076	At 15:52 MDT on August 1st a tree fell on a 1 inch line going in to the Ansul metre station near Edson, Alberta. The line vented for approximately an hour before it was plugged. The tree was then removed. The total volume of released gas was 2.9 cubic metres. There were no injuries.

2009-077	At 10:15 MDT a contractor day-lighting a section of the NGTL Eastern Alberta Main Line accidentally pushed a rock on to the exposed pipe causing damage to the outside of the pipe. The damaged section is approximately 863 metres from KP 4, which is approximately 20 km from Red Water, Alberta. There was no release, no injuries and no threat to the public.
2009-078	Crude oil storage tank number 210 sustained a large dent due to a high wind event. Tank 210 was empty at the time and was taken out of service. No release, no danger to public, no environmental damage. The dent is approximately 20 by 30 feet and lean a couple of feet into the tank. Tank 210 has a floating roof and was put on limited service at this time. The swath path created by the wind impacted Enbridge, BP and Imperial Oil terminals. Environment Canada as yet to determine whether it qualify as a tornado.
2009-079	Power outage and pipelines overpressure. Pine River Gas plant lost power and shut down. This event causes an overpressure above MOP on the pipeline system less that 10% for over 2 hours. During maintenance on Train 3, the Uninterrupted Power Supply (UPS) inverter system had a power interruption due to a fail card. ESD valve to the generator fuel lost power and went to safe mode. Pine River Gas plant lost power and shut down. This event causes an overpressure above MOP on the pipeline system less that 10% for over 2 hours. 20 inch OD: 1178 PSI; 24 inch OD loop: 190 PSI; 24 inch OD main line: 1180 PSI. Westcoast is working to bring the gas plant back on line. Train A was back on line at 23:50 PDT on 2009-08-10; Train B was back on line at 07:35 PDT on 2009-08-11; Train 3 – Staff is still working on it
2009-080	Fire cause by an electrical arc flash. TCPL technician was performing an emergency shutdown test on a variable frequency drive (VFD) which is located on a separate room of Compressor Station 134. As the technician pushed the reset button on the VFD the button arc and started a fire. Fire was extinguished with CO2. TCPL shut down the electrical supply to the plant. Investigation will begin on Wednesday 12 August.
2009-081	Worker preparing for work the night before, lifted a tool box (25 lbs) and felt a tweak in his back. Worker continued to prep for next day and returned to Mac house. The following morning worker woke up with a stiff back and reported this to his supervisor. Supervisor had medic check out the worker, Medic confirmed some tightness in his lower back. Baker Hughes management instructed the worker not to work, as he was not required (well was not ready) and arranged for the worker fly out to see there company contracted doctor. Worker met the Medic in the evening by coincidence in the hall way at Mac House (Medic also staying at Mac House) and Medic told the worker to go to the clinic. Worker was assessed and given some medication. Worker will be flying to Leduc on the 3 pm flight tomorrow and will be assessed when he arrives. Worker had complained to supervisor days earlier about back stiffness due to the small beds at the mac house.
2009-082	Glen Pilon of TSB called to report M&NE pipeline incident maint the discovery 24 August around 9:00 AM Atlantic time close to Honeydale, New Brunswick at 279 on route 755 close to mainline valve site. Suspect condensate stain affecting approx 2500 sq ft area. M&NE was working on that valve last week where they had to release some gas to service etc. Upon returning M&NE noticed stain on ground; suspect vapour was released with gas previous week. It is contained within site and there is no danger to public. Contact: [REDACTED] s.19(1)
2009-084	Dan Holbrook of TSB called to report A Spectra sweet natural gas leak at compressor stn 6A. Facility had been shutdown on turnaround and upon restarting operators noted a natural gas leak from a 2" riser off the 42 inch pipeline. Leak was because of a crack in a weld. Compressor Stn has been shutdown and deressured and Engineering services are investigating and making arrangements for repair. No estimate of volumve yet. Contact [REDACTED]



2009-086	A pressure relief valve malfunctioned and would not reseal. Approx. .5m3 sweet natural gas was released over a 2 hour period. Valve was isolated, and valve was replaced. Location was at the Hanna Alberta south sales meter station.
2009-087	Gas leak on a 8" pipe on weld at 45o elbow. Approximate release of 10 m3 sweet natural gas. TransCanada received a call from Apache who was during an corrosion inspection on the line. During the inspection, an audible leak was detected. TransCanada responded, isolated the #3 meter station and station is out of service until pipe repairs have been completed. Location is approx. 200 m from plant.
2009-088	1" soffit weld fitting leaking and release approx. 20,000 ft3 sweet natural gas. at the Burstall, Sask recompression/decompression station on the Foothills Pipeline. Facility was taken down and depressurized to implement repairs. BP Canada reported for TransCanada as it owns and operates the facility.
2009-089	Fuel gas venting from relief valve as designed. Alarm at gas compressor station, public complaint of gas smell followed by response from Fire Department. Spectra is investigating. Amount and duration unknown at time of call. Plant was in turn around at time of incident. No business loss. Bleed down and isolated to investigate. No visible cracking.
2009-090	Pressure relief valve on compressed fuel gas was not resetting correctly and vented approx. 100m3 of fuel gas. The line was blocked, venting had stopped and repairs are being initiated. Western Alberta System (WAS).
2009-092	Electrical emission resulted in a large amount of smoke, in an electrical building. System was isolated and Line 4 is under total shut down resulting in a product back up at Edmonton. Significant damage to electrical systems in building. Production still exists eastward on line. There was no visible fire. There was no injuries, or environmental damage. Enbridge was waiting for smoke to clear before investigating.
2009-093	At upstream tieover a contractor contacted a 24" endcap (24mm thick). Mag. Particle inspected, etched and UT sonic tested area. No indication of hard spots or cracking, no deflection. No gas release did not depressure line. Will buff out and recoat the new pipe. Area buffed was approx. 7.5x5 cm. s.16(2)
2009-095	TCPL reported a rupture, on Line# 2 (30" gas pipeline), approximately 5. km downstream from Station 107, resulting in an explosion and fire. Pipeline has been isolated. A brush fire resulted from the explosion. Ontario Provincial Police, Fire department are on site as well as TCPL responders. TCPL has activated its EOC in North Bay Ontario. Water-bombers have been called to fight the fire.
2009-096	TCPL recieved report of gas bubbles coming out of ground on 36" Line #2. near mainline valve #41. Section has been isolated and pressure reduced. Responders are on site and investigating cause.
2009-100	During routine equipment inspection staff noted that a deep cycle battery on the auxiliary power set had exploded. No injuries, damage was contained inside of the building and no impact on operations.
2009-101	A mouse entered the switch gear and shorted the phases which resulted in a reduction on Line 4. Enbridge bypassed the station, removed the damaged electrical cell and repaired it.
2009-102	During routine inspection, technician approached the station and could hear an audible leak. It was determined that the leak was coming from an arco gas sampler inside the station. The building was vented, the line was isolated, and repairs have not been completed at this time. TCPL report this as a minor incident, no other information is available at this time.

2009-103	Technician conducting M24 inspection on valve and valve operator. When tech cycled line 100-2 (upstream blow-off on jumper assembly). The jumper pressurized and gas began to leak from the top of line 100-2 (downstream blow-off Table Turn flange) Investigation determined that the leak was from the pressure indicator release fitting on the downstream blow-off, appears there is a crack in the threaded portion of the release vent. Gas has been vented from the jumper assembly, and it is tagged out awaiting repair. Estimated .10m3 released, no injuries, no danger to public/environment and no disruption to service.
2009-104	Station lost air pressure causing unit 3 to enter emergency shutdown. The unit discharge valve to its limit stops but did not fully close allowing sweet natural gas to vent directly to atmosphere for 45 minutes. Release detected by gas control in Calgary, an employee was dispatched and manually closed the valve. Volume TBD,, no impact to public or environment due to remote location of station.
2009-105	At 09:57 MDT a failure of a pipe fitting on a case pressure transmitter on Enbridge Line 65 failed causing a release of approximately 4.75 m3 of crude oil. The release occurred at Enbridge's Glenboro pump station in Manitoba. The line has been isolated and is awaiting repair. The spill was contained to site. There were no injuries and no fire was reported.
2009-106	At 14:10 MDT the air combustion feed failed to one of the thermal oxidizers in the sulphur plant at the McMahon Gas Plant. This caused the unit to shut down and caused 2.4 million cubic feet of sour natural gas to be released to the atmosphere. The sulphur plant was isolated and flow was eventually shifted to another oxidizer. The unit that failed is under going repairs. There were no injuries and no fire was reported. The company reports no impacts off site.
2009-107	<p>An apprentice welder was shutting of a propane welding torch when he noticed the flame would not go out. He attempted to close the valve on the torch but the valve broke and propane began flowing from it and caught fire. The apprentice then ran to the propane tank and shut it off. This extinguished the fire. There was a small burn area where the torch was sitting. The apprentice was not injured and the fire did not spread.</p> <p>██████████ contacted ██████████ Senior Regulatory Compliance Specialist at TCPL Tuesday March 23, 2010 to discuss corrective actions and recommendations of this incident.</p> <p>It was discussed that while the initial report identified that there were no unsafe acts or conditions contributing to the incident (g) there actually were as identified further on in the report (f). ██████████ agreed and indicated that legal missed that as well.</p> <p>It was also discussed that the report identified that all torches were inspected after the incident, which is somewhat reactive and it would have been nice to see a somewhat more proactive approach identified to preventing future incidents of this nature. ██████████ agreed, and will keep that in mind for future program enhancement.</p> <p style="text-align: center;">s.19(1)</p>
2009-108	A fine mist of diesel was released from a flare stack at a pigging station on Westcoast's 10" Wee Jay line near Chetwynd, BC. The cause is unknown as well as the volume. The area supervisor is on route as well as a vac truck to help clean up the spill. The ground on the site as well as surrounding trees were oiled by the mist. The company reports no injuries.
2009-109	Rupture, on Line# 1 (30" gas pipeline), between MLV 111a and 112, resulting in an explosion. The site is approximately 50 km outside of Haileybury, Ontario. There is no fire at this time but Ministry of Natural Resources Ontario fire crews are standing by near the site. The Ontario Provincial Police have isolated the site. The company reports that there is visible damage to the surrounding forest. The company reports that the section of pipe that was blown out is approximately 50 m in length. At this time there is also a small leak at MLV112 which the company is working to repair.



2009-111	<p>Enbridge Pipelines Inc. received a call from a landowner reporting that he smelled oil near the Odessa pump station. Enbridge did not see a pressure drop on any lines at the Odessa pump station but deployed a crew to investigate and shut in all pipelines at the location. Crews arrived on site and determined an area of about 100m x 400m impacted by oil, however they have not determine the volume of oil spilled. The impacted areas are off company lands. There is a nearby low area but no standing water. Enbridge has activated its emergency operations centre, is setting up a command post near the site and has dispatched its response trailers and environmental crews. It will excavate the lines to determine the nature of the leak and to initiate repairs. The spill location is about 2 km downstream (SE) of the Odessa pump station. The spill is in a sparsely populated area and there have been no public complaints or concerns other than the initial odour report. Enbridge is deploying land agents to respond to any public concerns. There have been no injuries, no media interest, no other emergency responders (Fire, police etc) and the spill poses a low hazard to the public. Enbridge has initiated contact with other provincial and federal agencies as necessary.</p>
2009-112	<p>Contractor conducting planned work at Lisgar Gate Stn near Brampton when 2" blow-off valve on 24" line was damaged. A fire started at the gate station building (Approx 12'X8'). Gas was shut off and the local fire department responded. Fire was extinguished at 1150hrs EDT. No injuries or danger to public. Local/Regional media interest. (formerly Consumers Gas - operated by Enbridge Gas Distribution.</p>
2009-113	<p>Refine product (Gasoline) leaking from the 12 inch Ottawa lateral. The product covers an area of approximately is 20 feet by 20 feet on Right-of-Way. Pipeline is shut in and a main line valve 500 feet downstream was shut down by hand. Spill was reported by Local Drainage contractor who was walking the property for a future proposed drain tile system. Contractor noticed the odour and phoned TNPL. Location. Lot 87 Concession 6 Township of Osnabruk United county of Stormont, Dundas, Glengary Mile Post 6 - note Mile Post O is at the Farrant Point Pumping station on the main line Property is not title drain. TNPL Notified TSB, NEB, Ontario Spill line, Environment Canada, local municipality. TNPL staff is on site, walk the property to ensure that no product is flowing in ditches. Product is on R/W pooling in a small depression. TNPL is mobilising contractor to excavate the Pipe and calling an Environment consultant Local Drainage contractor report to TNPI an Odour and possible leak. Landowners Landowner is aware and TNPL will notified 3 others landowners in the area. Closest Resident approximately 300 metes Closest road approximately 600 to 700 metres (need to be verified). No media at this time. TNPL did not request emergency service: Police fire department, Impact on Customer - To early to state at this time. Note: The Ottawa lateral is the only supply of gasoline and jet fuel to Ottawa region and airport.</p>
2009-114	<p>Dredged slug from the effluent treatment system was dropped on the ground when the tank overflow (400-600 litres). The spill liquid and slug was clean up within one hour by mixing it with saw dust, picking it up with a frontend loader and placing it in a dump truck to be disposed at an approved land fill. The material is still on site. The effluent treatment system is located within McMahon Gas Plant. During the dredging of the effluent treatment system which is part of the cleaning maintenance operation, dredged slug contaminated with hydrocarbon are placed in a tank, centrifuged to separate solid and liquid and then mixed with saw dust to be disposed to approved land fill. No odour. No environmental issue. No danger to the public.</p>
2009-115	<p>Suspected sour gas leak on a valve of a plug on a receiving line on one inch tubing on a piggin barrel located 38 km SSW of Tumbler Ridge, BC. Reported to the company by a operator of an adjacent plant who smelled the sour gas..</p>

2009-117	During re-commissioning of a produced water line, a leak was discovered at a flange joint. Reporting was delayed due to the uncertainty of the volume of the spill, which has yet to be determined . Consultants will delineate the spill and assist in determining the impacted area.
2009-118	An uncontrolled release of natural gas occurred when a Fisher 630 regulator diaphragm, on the metre station run, malfunctioned. The excess flow from the unregulated metre run began venting. A service employee was on-site at the time and changed out the diaphragm, repairing the regulator. No injuries or other impacts reported.
2009-119	Enbridge reported that a switch gear on Line 4 at the Strome, AB Pump Station had an electrical fault at 11:30 MDT, resulting in smoke in the pump station. Line 4 is currently on by-pass at a reduced flow. A repair schedule was not provided. There were no injuries, no other environmental impacts and no near-by residences.
2009-120	At 6:17 MDT at the Berland River, AB Compressor Station, a scrubber high-level alarm caused an automatic dump valve to open. The level transmitter hung up (got stuck) and did not reach a low enough level to turn off the dump valve resulting in the scrubber venting sweet natural gas to atmosphere for 2 hours 40 minutes until a TCPL employee, dispatched from Edson, AB manually shut the valve to stop the venting.
2009-121	A weld cracked on a discharge pipe coming out of the TransCanada Pipeline's station 62 in Upsala, Ontario. Approximately 100 m3 of sweet natural gas was released. Gas control immediately shut down the station. Repairs are under way. No injuries, no fire.
2009-122	While exposing a pipe for maintenance a hoe operator accidently struck the pipe causing damage to the outside of the pipe. The event occurred approximately 20 km outside of Nipigon, Ontario at MLV 74 + 18 km. No product was released and there are no injuries. The site has been shut down to investigate how the event occurred.
2009-123	While attempting to change a catalytic heater at the metre station an employee opened a line that was assumed to be shut in. The line contained product and a very small amount gas was vent to atmosphere. The employee immediately closed the line. There was not enough product released to activate LEL detectors and the employee was not injured. No fire and no threat to public.
2009-124	Central Processing Facility (CPF) backwash pond routine lab analysis, as per water licence, exceeded parameter of licence. Source has been isolated and investigation is ongoing.
2009-126	Uncontrolled gas release at the compressor station resulted when a tubing line broke free from the fitting on cylinder 3 of unit 1. A technician was called by gas control to respond to an ESD of the station as the unit had shut down on a high gas alarm. Once entering the building the technician observed the broken fitting resulting in gas in the building with the gas detectors ESD'ing the building. The fitting and tubing was replaced and the compressor returned to service. No danger to the public, no ignition. No estimate of gas release volume at this time.
2009-128	M&NP reported a small natural gas leak on the M&NP mainline at its Sackville compressor station located about 10 km from Sackville NB. The technician arrived on site in the morning and when he was in the vicinity of a flange, he could hear a leak. The leak was minor in nature and posed no risk to the public, the environment or workers on site. No fire and no gas volumes were determined. Repairs are underway on 18 November 2009. NEB staff discussed with M&NP the need to ensure that even minor leaks are reported to the TSB as soon as possible. M&NP Contact: [REDACTED] s.19(1)



2009-129	Emera Brunswick Pipeline Company reported a leak of sweet natural gas at the new Redhead meter station. Basket streamers had been installed backwards and work was planned to rectify the error. Work was planned during a shut down and modifications were required in the vent piping. The fittings were not tightened down properly resulting a leak of sweet natural gas. Approximate duration of the leak was 1-11/2 days resulting in a release of approximately 4-5 cubic feet of SNG. Fittings have been tightened and the leak has been resolved.
2009-130	A worker fractured the left tibia, sprained his right ankle and separated his left shoulder when he used his arm to brace himself when he landed on the ground during line up operations. A crew was working on the 8" fill line and were attempting to line up a 90 elbow with an excavator operator 16m away. The pipe was in the clamps when the operator signaled he was moving to adjust the position of the pipe. The pipe fell out of the clamps and hit the worker below the knees, rolled down scratching his shins and landed on his ankles forcing the worker to fall to the ground. The worker was treated in hospital and released. The worker arrived at work the following day using a walking cast and accepted modified duties.
2009-131	<p>A TCPL technician was driving by and noticed that an unauthorized dig had occurred 4 km west of Dymont, Ont near Ignace Ontario at MLV 59 + 4km. It was noticed that the coating had been removed at contact area and scratches were on the pipe. There was no release of product. Location of the excavation was on Crown Land. Party who had conducted the dig were not on site and TCPL is investigating. Area has been flagged off and TCPL is exposing pipe to verify degree of damage and follow up work.</p> <p>The area was flagged off with snow fencing installed to secure and identify the site. An excavation crew was dispatched to site to further expose the pipe to examine its integrity. Hand excavation of the line revealed scratches/anomalies on the pipe with some coating removed. Applus-RTD was contracted to investigate, confirm, and assess damage to the exposed area. Magnetic Particle Imaging was used to determine that several minor gouges and scratches existed on the pipe, but that no integral damage was present.</p> <p>Line 100-2 was also exposed and inspected for anomalies. The superficial imperfections on Line 100-1 were removed with light buffing. Line 100-2 did not require any repairs and was scheduled for recoating during the week of 8 February 2010. Line 100-1 was, at the time of the incident, covered with 0.2 m of fill. Plans were made to increase the fill to 1.2 m and increase signage for this line at the time of recoating of Line 100-2.</p>
2009-132	During construction, a backhoe caught on fire while clearing brush. Workers attempted to extinguish the fire but could not put it out. The backhoe was destroyed. The contractor is North American Pipelines and the hoe belonged to EOS Pipeline Facilities Inc.
2009-133	A worker sustained a compound fracture to his left ankle when he jumped from an excavator, that was on a lowboy, onto the ground. This occurred during repositioning of the excavator. The lowboy driver and pilot truck driver were taking the 330 excavator from road 95 to road 75. Driver was travelling west on Hwy 201 and before turning north onto Hwy 32, the lowboy driver stopped to remove the blind on the rear of the cab window to facilitate backing up when reaching the destination. The driver removed the blind and reentered the cab to proceed to location unaware that the pilot truck driver had climbed onto the back of the lowboy to remove the blind from the back of the excavator. The pilot driver jumped from the excavator when it started to move. The lowboy driver saw the pilot driver in the ditch and call for assistance. The pilot truck driver sustained a compound fracture to the ankle and required two surgeries and extra days in the hospital to ensure that infection did not set in before putting on a cast.
2009-134	A fitting failed due to cold temperatures resulted in a 3m3 spill of condensate in the pump building. Some condensate migrated outside the building contaminating the soil.

2009-135	A significant electrical fault in the electrical switch gear (ESG) building cause the air to ionise resulting in a fire that destroyed the interior of the building (15 X 20 feet) housing the ESGs. ESGs are used for line number 4 three pumping units. Line 4 is still in operation and it is by-passing the Loreburn pumping station. Volunteer fire department responded at Enbridge's request. The fire burn itself out. Enbridge also activated its emergency response procedures. No injuries, No release of product. Enbridge is working toward temporary repairs and planning to bring by Tuesday 15 December a back up ESG unit from Regina.
2009-136	Release of sweet natural gas occurred from the wet seal oil system on a compressor unit. The on call technician noticed that the gas detector indicated gas in the building. The gas detector indicated less than 10% and did not trigger the shut down of the unit. The on-call technician shut down the unit manually. Note: The release was discovered on the 6 December. Reported to TCPL on 8 December and then reported to TSB on the 10 December 2009. No injuries, No impact on delivery Incident detail report should be filed on Friday 11 December.
2009-137	Release of 69 cubic metres of natural gas on line 100-1 due to the opening of a pressure release valve. On site technician heard the gas release, shut down the pipeline, repaired the valve and put back the line in service. The technician found moisture in the valve. No injuries, No impact on delivery
2009-139	On Saturday, 12 December 2009, for 5 hours starting at 12:38 MST, the 8B-L1, 30" and the 8B-L2, 36" sweet natural gas lines downstream of Hope, BC Compressor Station 8B, operated at 783 psi; 3 psi over operating pressure (780 psi). The company changed the set points and reduced the pressure to operating limits. Spectra is investigating why the lines operated for 5 hours over pressure before being corrected. There were no injuries and no danger to the public.
2009-140	A flash fire occurred at the NGTL Lodgepole, AB Compressor Station on 14 December 2009 at 6:00 MST. Oil misting, as discovered on the power turbine accessory gear box, is suspected to have contacted the exhaust sheathing, resulting in the flash fire and emergency shutdown of the compressor. NGTL is investigating the source of the oil and will effect a repair before re-starting the unit. There is no impact on throughput, no injuries, and no threat to the public or any noticeable environmental effects.
2009-141	During routine monthly tests, gas with a concentration level of 60 ppm was detected. The station is a sweet gas facility without H2S sensing or gas shut off capability. The technician immediately shut in the station and reported the incursion to the producers. Producers took action to clear the sour gas and notify downstream customers. The incident was covered by the media.
2009-142	Imperial Oil Resources operator doing surveillance noticed a hydrocarbon odour, suspected to be from Heat Exchanger 111. Potential spilled product is C2 (ethane) and C3 (propane) natural gas liquids. Imperial Oil Resources has isolated the backwash pond and taken water samples. Analytical results are expected to be available on Monday 21 December 2009. There is no risk to persons, property or equipment.
2009-143	Plant operators noticed that a blower was not operating properly due to a partial blockage of a SO2 gas pipe and the operators were not able to move all of the SO2 to the incinerator. Consequently, SO2 back-flowed through a fresh air vent and is being released. Monitoring shows SO2 concentrations of less than 1 ppm. Spectra Energy personnel have been trying to clear the partial blockage throughout the day, but had not succeeded by 15:30 MST on 17 December 2009. The gas line continues to be used intermittently to continue plant production (no apparent loss of production).



2009-144	At approximately 13:00 MST on 8 December 2009, during a routine sniffer test at the Dancing Lake Receipt Meter Station, a slightly higher concentration of H2S, 24 to 30 ppm, was detected and emergency shut-down (ESD) activated. Arrangements were made for Husky Oil to draw production back to their facility. NGTL installed a temporary H2S detector on site for on-going monitor in case another slug of H2S comes in from the Husky facility. The Receipt Meter Station was re-opened on 14 December 2009. Reporting delay was because NGTL was unsure if the event was reportable.
2009-145	At approximately 6:00 MST on 12 December 2009, the Doris Creek Meter Station H2S detector detected sour natural gas in the facility, triggering an emergency shut-down (ESD) and isolation of the meter station. By the time a responding NGTL employee arrived on site, AltaGas was already pulling back its gas to the station and no more H2S was being detected in the station. The NGTL employee opened the valves that had been triggered to close and found that the upstream gas valve was already opened (had not operated as intended). Valve solenoid was replaced on 14 December 2009 and the valve operated properly. The station was put back in operation.
2009-146	Crude Oil leaked from a failed pig trap "O" ring. Estimated volume 3412 Litres. Oil was contained on site and was recovered with absorbing pads and a front end loader. Recovered material is stored in an 30 cubic meter open top storage tank. Last pig run was on Thursday 24 December 2009. NT Spill Line report # 09-543 will be faxed to the NEB.
2009-147	H2S alarm sounded on incoming line at a/n meter station. The H2S block valve did not close when alarm sounded resulting in 25 ppm H2S flowing for approximately one minute. Contacted TCPL staff who advised that gas control has indicated it was a temporary spike with the H2S content dropping to 10 ppm after one minute. TCPL further advised that the block valve should have closed at 16 ppm. The temperature was -38 on the day of the incident and when the tech tested the valve it failed to close. The tech returned the next day, temperature had warmed up to -21 and the valve was working properly when tested. Company contact advised that there was no adverse impact on downstream operations. TCPL is continuing to investigate this incident.
2009-148	Company employee slipped on black ice at the terminal office buildings. The slip resulted in a fall and a broken tibia and fibula. This incident was included in the Safety Performance Indicator report and TMPL does not know why they missed reporting it to the NEB.
2009-149	Overpressure of Line 4 to 129% of MOP. Discovered during a historical record review performed by Enbridge as part of the investigation of incident 2010-102.
2009-150	Overpressure of Line 4 to 113% of MOP. Discovered during a historical record review performed by Enbridge as part of the investigation of incident 2010-102.
2009-151	Overpressure of Line 4 to 114%. Discovered during a historic review of control system records performed as part of the investigation into overpressure incident 2010-102.
2009-152	Overpressure of Line 4 to 115% of MOP. Discovered during a historical record review performed by Enbridge as part of the investigation of incident 2010-102.
2009-153	Employee slipped and "rolled" his ankle. Ankle fractured and employee underwent corrective surgery the following day. Workers were cleaning the area of scrap metals when the employee, walking up a slight incline slipped on the ice.
2009-154	Part of a ditch wall collapsed and a worker, attempting to get out of the way, got one foot trapped in the mud and hyperextended his lower leg resulting in a fractured fibula, four broken bones in his foot and a dislocated toe.

2009-155	Worker suffered a fractured tibia, sprained ankle and separated shoulder when a pipe fell out of the clamps that were holding it, and rolled along the ground striking the worker below the knees and knocking him to the ground.
2010-001	Gas Control detected gas venting from a release valve at the Boundary Lake meter station. A technician attended, blocked in the valve, then removed the valve and seat for recalibration. At this time the company suspects the release resulted from a frozen weeping pilot valve. No response from fire/police, no injuries and no threat to environment. Estimated 125 e3m3 natural gas released.
2010-003	A report of water pooling on adjacent property was received. Investigation revealed that a bonnet gasket on a block valve had failed and sprayed boiler feed water that travelled onto the Alta Gas property next to the plant. The valve was isolated, replaced and put back in service. Water was tested and PH levels of 9.25 were recorded. Approximately 200 barrels spilled onto the ground.
2010-004	TSB advised they had received a call from TCPL regarding a diesel fuel spill on a construction project in Northern AB. Due to the volume TSB deemed it non-reportable and took company contact information only. Follow-up with the company revealed that a fuel truck on the North Central Corridor Project had its own fuel tank punctured, resulting in 30-50 litres of diesel to spill onto the ground and then onto the ice of a nearby creek channel (Class C). Company reported incident to Alberta Environment and DFO. Contaminated snow removed and absorbent pads and a Hydro vac truck utilized in the clean-up. As the product entered onto a frozen water body this is now deemed reportable.
2010-005	Block valve at NGTL Wolverine River, AB Meter Station failed to close completely, although computer system showed the valve as closed . Detector recorded 18.3 ppm H2S; which had been leaking in small amounts for about a day from the block valve. The block valve had to be manually closed. No report of injuries, adverse environmental effects or other damage.
2010-006	An electrical fault in a GE 300 hp electric motor caused a fire within at building at the Belleville Compressor Station near Belleville Ontario. The fire was contained to the windings in the motor and was automatically extinguished by the fire suppression system within the building. The unit shut down automatically, resulting in a minimal volume of sweet natural gas released to atmosphere for a few seconds. Closest residence is approximately 1 km from the station. There was no damage to the building, no impact on deliveries, no environmental impacts, no other responders and no threat to the public. TCPL is investigating the cause.
2010-009	The pipeline overpressured between Oakville Terminal and Bowmanville Pump Station during a product delivery switch at Oakville Term. One of the valves within the termianl failed to close crating an invomplete tank valve sequence alarm. The alarm logic commanded the valve to close, followed by the station take-off vlave. These valve closures allowed pressure to build up inthe pipeline between Oakville and Bowmanville. Pressrure at Oakville exceeded the MOP by 16.1% for 8.5 seconds. The pressure at the Oshawa black valve exceeded the limit set by the NEB by 11.7% (the pressure however was below the MOP.) Company checked the station manifolds and block valves between discharge pressure at north Tornot while it investigates the occurrence.
2010-012	A possible gas leak at the Agnes facility at the Leige warehouse yard. The system was isolated and, it was determined that a relief valve on the utility gas pressure reduction manifold was releasing pressure. It was determined that the regulator was working properly but the relief valve released before the set pressure point (20psi). The relief valve adjustment set screw body threads had failed and the screw had backed off. A replacement was ordered and will be replaced next week. There was no environmental impact. Location is isolated and approx. 250 km SW of Ft. McMurray , near Pelican Lake, Alta.



2010-013	Facility experience false shut-in due to H2S analyser failure. Block valve close. However the up stream producer valve fails to open. Producer shut down the compressor but other wells continued to flow resulting in an over pressure of 116% over MOP on the Provost North Lateral. Overpressure lasted at least 2 hrs. No release of gas. NGTL determined on Monday that the line affected was their own. Integrity check will be performed.
2010-014	An arc flash mark on a Variable Frequency Drive number 2 (VFD-2) in Hardisty pump station was discovered by a Siemens representative. The Arc to ground produces secondary damages. No injury. Pump is isolated and in lock down.
2010-016	The Gold Creek Compressor Station is located 50 km south east of Grande Prairie. During investigation work on bearings, the maintenance crew discovered a sweet gas leak from a cracked fitting on a one-inch compressor supply line. The fitting was replaced on the spot. The volume of gas and duration of the leak are unknown. There were no injuries, no off-site impacts and no response necessary.
2010-018	Spectra Energy Gas Control received an odour complaint from a resident in the Tumber Ridge area. Westcoast field staff investigated a nearby pig receiving barrel on the Grizzly Valley pipeline. An isolation valve to the flare stack revealed a "whisper leak" that was audible. Westcoast staff could smell the H2S from the leak, however their personal monitors did not detect H2S. The valve was isolated then examined, repairs are to be conducted. Westcoast indicates that the leak was at a very low rate and of negligible volume. No injuries, no hazard to the public, no offsite impacts other than the odour complaint, no other responders required, and no impacts to deliveries. NOTE (by G.Mesar): As per the telephone conversation with [REDACTED] from Spectra, it was confirmed that the incident occurred at receiving barrel of the 12" Lower Murray River Pipeline, and not on Grizzly Valley Pipeline as was originally reported. s.19(1)
2010-019	An M&NP technician was working at mainline valve 40 on the M&NP Saint John lateral. He observed a small hissing gas leak from a pressure relief valve on a sweet gas fuel line to the thermal electric generator. The relief pressure was set for 525 psi but the operating pressure was only 300 psi. The technician removed the relief valve and routed the fuel gas through an alternate relief valve. The valve will be replaced. There was negligible volume released, no off site impacts, no environmental impacts, no other response required.
2010-021	The Operator of the Devon Wapiti plant contacted TCPL to advise that he heard an audible leak from the TCPL mainline valve # 90 on the NGTL system. TCPL investigated and found sweet gas leaking from a valve close relay. TCPL isolated the leak, the gas line was tagged out of service and repairs are to be conducted. No off site impacts, no injuries, no estimate on volumes of gas released
2010-024	Lube oil from the "oil level sight glass" sprayed on to a hot power turbine and ignited, resulting in an automatic shutdown of the plant. Staff member onsite responded to the ESD and put out what was left of the fire with an extinguisher. It is believed at this time that the gasket that holds the glass to the flange failed causing the oil to spray onto the turbine. No injuries, a small amount of insulation was burnt and the plant is back on line. Approx. 30 gallons of lube oil collected in the catch basin below the turbine.
2010-025	There was an emergency shutdown of the "A" Plant caused by a failure of the detronic monitoring equipment. During the venting of the plant, the suction side valve failed to completely seal which then resulted in a complete yard shutdown. A technician responded and was able to seal the valve manually. Loss of natural gas estimated at 51.4 cubic metres. Plant is isolated and off-line, TCPL is looking to replace the UVIR component on the monitor. Note: Augusta Fire Dept. attended to the station main gate as a result of noise complaints from the public. This is classified as a level 1 at this time as the Fire Department was not directly involved in the incident response.

2010-026	Backhoe operator made contact with the pipe during a maintenance inspection of NGTL's corrosion dig program. No rupture no leak. Technicians are flying today to the site. Location SE 9-110-4 W6 , 60 km East of Rainbow Lake, Alberta. Detailed Incident Report received 26 March. Will review and follow-up.
2010-028	North booster pump leaked 50 m3 of condensate from an upstream flange. Leak contained on site and flow was diverted to other manifold. Vacuum trucks on site. No injury, no danger to the public Updated Volume: 150m3 of refined product (gasoline, diesel, fuel oil) all recovered. Update based on company DIR.
2010-029	16 inches valve located in a vault leaked. First Product (oil - heating oil ) flow in a small creek and into Riviere des Prairies. Friday, Environment Quebec receive complaint of oil in the river. Env. Quebec dispatch crew and deployed boom in creek. Env. Canada onsite this morning investigate the origin of leak and identify TNPL sign nearby. Leak came from a vault. EC phone TNPL control at 12:20 EST. Pipeline was shut down immediately. 13:30 EST confirmation gasoline (second product) in creek. TNPL dispatch crew from Landcaster On ETA. Vacuum trucks on site. TNPL was shipping oil yesterday and started to ship gasoline on Friday night. New release from Min of environment Quebec. Oil in the Riviere des Prairies about 250 metre mix. Vault 6 x6x10 Estimate volume about 100M3 17:15 [REDACTED] confirm the leak is from a flange. Mission env. (TNPLK consultant is on site ) NEB staff dispatch to site Saturday Robert LeMay Sunday Jeremy Demitruk
2010-031	While draining E booster pump to isolate it, and as filling up train, valve was closed and approx. 200 litres of MDEA (amine) spilled and product went to the outside on the plant property, on a gravel and cement walkway area. This area was cleaned up and is part of a collection system which goes to a ground water well system which is a closed sewer system (isolated) leading to effluent plant. Provincial Emergency Program has been notified.
2010-032	A sour block valve operator was venting to atmosphere a gas/oil mixture. Gas vented to atmosphere and oil residue went to ground. The amount is unknown. The spill was contained and gas is no longer venting. TransCanada is investigating the cause of the operator failure.
2010-033	NGTL maintenance staff were on site conducting routine work when they noticed a small leak at a 1/2-inch sweet gas fitting. The 1/2-inch tube was leaking at the ferrule fitting. The tubing was cut-off and the ferrule fitting re-installed. There was a small crack in the tubing at the fitting. TCPL reports negligible amount of sweet gas was lost, no emergency response was required and no impacts off-site.

s.19(1)



2010-034	Company responded to a call from Suncor staff of a possible leak on the TNPI ROW (Ontario Hydro corridor) in Oakville. Company staff attended and observed product, btd gasoline that had migrated down the east bank of Bronte Creek and covered approximately 30-40 meters along the bank. Company operates a 10" line at this location and it crosses under the Bronte Creek. No indication that the product has entered the creek at this time however company advises it is probable. Company advised the product in the pipe is "RBOB", which is essentially gasoline ready to be blended with ethanol. Estimate of volume released has not been made and cause/source of the leak has not been determined. The pipeline was not operating when the leak was detected, product remains in the pipe and pressure has been reduced to 2-4 psi. Ontario MOE and Halton Regional Municipality Environmental Services are responding. TSB has indicated that they are still gathering information but intend to send an investigator. Police and fire have not responded. TNPI has staff onsite and a crew downstream in the event product is found in the creek.
2010-040	Workers were using a cutting torch to cut off seized bolts from a flange. A fire occurred as approximately 1 litre of crude was released from the pipe. The workers were prepared for this event and the fire was immediately extinguished. Contact: [REDACTED] s.19(1)
2010-041	There was a precautionary shut down of one of the compressor unit due to a loss of power. Smoke was noted coming from an exhaust vent at the time of shut down but the source of the smoke could not be determined and there is currently no smoke present. No injuries or evacuation. The unit is isolation up and downstream of the station. and service personnel will be on site Monday.
2010-042	Ron Clark from TSB called April 12, 2:07 MT [REDACTED] to report that TransCanada reported that on Saturday April 10th at approx 08:00 MT at Caron Compressor station in Saskatchewan, a 3/8 inch gas tube came out of fitting supplying gas to recycle valve. Technician isolated the tubing and incident presently being investigated. Preliminary incident report to be filed shortly. No injuries, No environmental issues. s.19(1) [REDACTED]
2010-044	Westcoast reported that a plume of residue (mist) was expelled from the flare stack on the plant site when "B" jet generator tripped off. With the B jet offline, there is not enough power to run the two reciprocating engines and steam generators. This resulted in load shedding and a shut down of sulphur trains A and #3. The shut down resulted in product being diverted to knock out drum and flare stack. Amines, sulphur, some hydrocarbons and residues were included in the low pressure release to atmosphere (100' into air which sprayed on company property site approx. 150' x 500' in aerial extent). Mist lasted approx. 5-10 min. All product was contained on site and some went into melt water swell and into a site retention pond. There was no release off site, no injuries occurred. A small absorbent boom was deployed and a vacuum truck which was on site collected approx one barrel of mixed water, gravel and product. Westcoast will be steam cleaning contaminated structures.
2010-045	TCPL reported that while conducting a compressor blow-down, approximately 100m3 of sweet natural gas was released to the atmosphere. Although the suction and discharge valves were closed, sweet natural gas bleed through the suction valve. The station was isolated on April 1, 2010 and station remains isolated pending further investigation. TCPL has waiting for appropriate grease to service valve to determine if valve issue has an integrity or a service issue. Due to the delay in reporting, TCPL will be submitting Preliminary Report and Final Report at the same time.

2010-046	A maintenance crew was working near a riser at the Etzicom Meter Station 3. ■ km from the hamlet of Aurora, Alberta, 50 km south of Medicine Hat, Alberta. The backhoe was moving on uneven ground when the bucket struck a 1-inch riser. The riser was dented but did not leak, no release of gas, no injuries, no environmental impact and no responders. The line was shut down, TCPL will repair and investigate. s.16(2)
2010-047	TCPL was conducting an investigative dig at a colony of stress corrosion cracking (SCC). The location is MLV 103-2 + 0. ■ km., approximately 10 km east of Pourquoiis Junction, Ontario. TCPL isolated the section of line, reduced pressure to 3050 kPa, exposed the line, removed the coating and sandblasted the line. During this process there was no indication of a leak and no gas was picked up by gas monitors. When TCPL commenced RTD operations workers noticed very faint bubbles from the SCC area however there was very little gas leaking. Workers evacuated the area. The pressure on the line remains at 3050 kPa and the line is still isolated. TCPL is preparing a depressurization and cutout plan to repair the line. There was no injuries, no responders, no fire and no environmental impacts. s.16(2)
2010-048	An unintended fire occurred during preparation for a hydro-test. Between MLV 135 and 136 on 100-1, pipe had been isolated and evacuated of gas. The pipe was hot cut at 135 and air movers were installed and operated for 4 hours. After a further 45 minutes, a zero LEL reading was detected. The pipe was cut at MLV 136 in readiness to install the test head. After removal of the pipe, the welder and helper observed a flash in the pipe. The technician at 135 took readings which were 6% LEL and one minute later a 0% LEL. The pipe ends were sealed with rain caps for the night and gas tests the following morning revealed 0% LEL. The flame self extinguished. No threat to the public. TCPL is investigating. Contact at TCPL is ■ s.19(1)
2010-049	Condition 37 Reporting OC-51. A ¼" body vent fitting broke off a 2" valve and released 4-5 gals (0.02 m3) of oil. Spill was contained within the facility and recovered. There was no environmental damage and no injuries. TCPL is investigating and should have a report to TSB later today.
2010-050	While conducting a planned emergency shutdown, a fire occurred at the blowdown silencer. This resulted in a small grass fire that was subsequently extinguished. The silencer was locked out for repair and being investigated as to the cause of the fire. There were no injuries to workers or the public. Only type of silencer in system- permanently removed from system.
2010-051	PRV popped earlier than its set point and vented for two hours. The yard was blown down and the PRV fixed/replaced. Station back up and running with the technician remaining on site to ensure everything functioning appropriately.
2010-052	During a routine excavation to remove two pipeline repair clamps installed in the late 1960's on the Petroleum Transmission Pipeline, a pinhole leak was found at each clamp. There had not been any surface evidence of the leak (i.e. dead vegetation). The release was very small and did not affect the surrounding area. The repair clamps were removed and replaced with pre-tested pipe.
2010-053	Tubing in the heat exchanger leaked resulting in natural gas mixing with glycol. The alarm sound, the system was shut down, the heat exchanger was replaced and the unit put back in operation. Small natural gas release.
2010-054	Technician making an isolation testing on valve over torque and crack the nipple /treads. Leak lasted 3 minutes with minimum amount of sweet natural gas release. The valve was shut down, replaced and put it in service. Still waiting on information on which line the incident occurred.



2010-055	Sweet gas and oil released due to malfunction of a block valve. An upstream producer reported a high scrubber warning alarm that shut in the producer. A technician was dispatched and on arrival to site discovered the cellar block valve closed and the shafer operator venting gas and oil. No estimate of gas released but about 20 litres of oil was released. Nearest water 5 miles from site. Not impact to public or environment. Oil contained to site.
2010-057	During an inspection of the PTC pipeline within proximity to KM post 35, dead vegetation was discovered (approx 6 ft in diameter). After excavation a pinhole leak was identified. The line was repaired June 14th. Unkown amount of product released, unknown contamination of area. Line carries propane and butane.
2010-058	An employee working in the area noticed a small leak, isolated line, attempted to remove valve, but it broke off (1 ¼" NPT fitting) upstream of #2 blowout discharge sensing line. There is no estimated amount of product released. No impact to public, environment and wildlife.
2010-059	Maritime NE Pipeline reported to Emera Brunswick a reduction in the odorant facility. During investigation, 1 odorant pump was leaking gas due to lose screws in the piston. Pump had recently been rebuilt. There is no estimate of product lost. Leak was estimated to occur at a rate of 2 cc a min. When leak started is undetermined. Area was checked Wednesday at 10 am and no leak was detected. It was correct by 1300-1400hr Friday.
2010-060	Staff had completed scheduled work on the "E" Plant Compressor and were returning the unit to service. After loading the compressor to perform a leak test, staff were venting to atmosphere when a sudden thunder storm rolled in and lightning ignited the gas. The fire involved only the gas that was vented, no damage to property, no injuries, and no danger to the public. Fire/police did not respond.
2010-061	As a result of a complaint from the public, Enbridge staff attended the noted site to investigate and found that the pipe closure on the ascending trap was leaking. Line 4 was shut down, the component isolated and the line is now back in service. Approximately 60 barrels of crude oil (Wabasca Heavy) leaked from the trap and the company is reporting that the oil is confined to their property. Staff are on site conducting cleanup operations, cause of the failure is still under investigation. Fire/police did not respond.
2010-062	A pressure relief valve popped and then failed to reseal allowing sweet natural gas to continue venting. Gas control received a call from someone working in the area and dispatched a technician. The valve was isolated-bypassed and the station was put back into service. At this time the company does not know how much gas was released but indicated the line was at 150psi and estimated gas vented for approximately 7 hrs. No damage to property, no injuries, and no danger to the public. Fire/police did not respond.
2010-063	A compressor shut down (reason unknown at this time) resulting in a lube oil fire on the power turbine. Fire extinguished by the operator and damage was minor. Compressor unit remains shut down while the incident is investigated by company staff. No injuries and no danger to the public. Fire/police did not respond.
2010-066	During a site inspection, a minor leak was detected on a threaded grease fitting on a blow down valve (16" line). Duration of the leak is unknown, company estimates ½ m3 of sweet natural gas was released to atmosphere. Company staff have notified a nearby resident and repairs are underway.

2010-067	A body bleed quarter turn valve was seeping crude oil. Approximately one litre of crude oil was spilled. Company staff have tightened the valve to stop the leak and further tests are to be conducted. Location Line 100-1, MLV 25 kms E of Portage La Prairie pump station
2010-068	A small leak was detected coming from a plug on a valve body. Approximately 1 litre of crude oil was released. At this time it is believed that the plug was at fault and repairs are underway. Facility name to be added once Keystone data is loaded into PID
2010-070	While performing remote maintenance on mainline valve radio equipment upgrades at a number of mainline valve sites in Manitoba, technicians noticed minor oil leaks on body bleed valves on both up and downstream pressure transmitter block valves. TCPL will gather and provide additional information on the locations from field personnel and file one report for all locations. Total from all locations estimated at < 0.5 L. No injuries, no danger to public, no environmental impact expected.
2010-071	While filling oil into proofer, after completing a water draw, locking mechanism on valve slid into a locked open position. An estimated 10 L of light crude oil sprayed into a pail and splashed back onto the ground. No injuries, no danger to public, no emergency services required.
2010-072	Sewage tank on temporary office trailer unit overflowed 20L of sewage water to the ground. The site has been cleaned and soil stored in Hazardous Storage Yard until it is shipped for disposal.
2010-073	At 14:20 EDT a local inspection noticed dead vegetation on TNPI's RoW at MP 2. [REDACTED] of the Montreal feeder system. The location is within the Shell Canada refinery compound in the Montreal East, P.Q. industrial area. TNPI notified line locators, TNPI's emergency crew and contractors and brought in backhoes to excavate the site and determine if there is a line leak. Product collected at surface has a density consistent with jet fuel shipped in the line. Suspected leak is [REDACTED] m south of Metropolitan Blvd and several kms from the nearest residence. An inactive quarry about [REDACTED] m to S.W. has product seeping into it from what was initially thought to be from a February 2010 Shell Canada tank or line spill. TNPI indicates no danger to the public. Further information will be provided once the feeder line has been day-lighted.
2010-074	Landowner adjacent to Valve site 101, 10 km SE of Cochrane ON, reported to TCPL gas control, hearing gas coming from the site. On-duty technician was dispatched to site. Gas supply was isolated. Leak was coming from the body bleed vent on the #2 to #3 tie-over valve due to loss of seal. The seal was greased to repair it. TCPL reports 3.3 E3 m3 of sweet natural gas was released. No other near-by residents, no fire, no danger to the public, no other impact to the environment. There was no disruption to service as the tie-over valve was already closed due to downstream work.
2010-075	During construction, 3 leaks were identified at 3 different valves on the Keystone Line in the Elm Creek Yard. Approx 1 litre of crude oil was the estimated loss at each valve. Leak is contained onsite, with no adverse effects on the public, or environment. TCPL Contact: [REDACTED] [REDACTED] s.19(1)
2010-076	At pump station #25 less than 1 litre of oil went to ground on site. Leak source is from the valve stem seal, at the station inlet valve in the area where the valve operator bolts onto the valve. TCPL Contact: [REDACTED]

s.16(2)

s.19(1)



2010-077	Located at the Moosomin Valve Site 20km west of Miniota on the keystone line, less than 1 litre of crude oil lost from a body bleed valve. A pin hole leak was discovered in weld. To be repaired. No reduction in service, no impacts to environment. TCPL Contact: [REDACTED]	s.19(1)
2010-079	At compressor station #130 an uncontrolled release of sweet natural gas occurred, estimated 100 cubic meters. Technician found a broken piece of tubing on the A2 isolation valve on the outside of the building. It was isolated and repaired and is back in service. Line 100 runs through the station. TCPL Contact: [REDACTED]	
2010-080	On 26 July 2010, at 7:30 MDT, while doing required weekly inspections, a minor oil leak was discovered from the NPS 30 gate valve stem inlet manifold piping into the Keystone Hardisty terminal. Less than 1 L of oil was spilled. Technician turned the nut a quarter turn to tighten the stem packing to stop the leak. The area was cleaned and contaminated soil removed.. No anticipated environmental impact, no danger to the public and no disruption to service.	
2010-082	TCPL Keystone discovered discharge check valve dripping a minor quantity crude oil; estimated at 0.10 L. Check valve to be repaired this week. No injuries, no change in service, or anticipated environmental impacts.	
2010-083	Fire was reported on the ROW at Norman Wells by the Bosworth creek 3-4 kms of crude oil station. Fire is out. Fire was on the north side of the wood chip slope. Fire is suspected to be caused by spontaneous combustions potentially caused by high heat. Damage is estimated to 20'x20' on the ROW. Imperial Oil employees spotted the fire and reported to the with Norman Wells Fire department which responded with Enbridge. Sprinklers are on site for the next several hours to keep the area cool. NWT Environment of Natural Resources are on site. The closest residence is approx 4-5 km away and not at risk. No injuries are reported. Enbridge Contact: [REDACTED]	s.19(1)
2010-084	Sweet Natural Gas was released at the Redhead Meter Station. Neighbouring company Canaport LNG detected an odour and reported it to Spectra's 1-800 Emergency #. Technician went to site and leak was detected by SNOOP near the threaded fitting location. Lower levels were detected. Technician tightened fittings that were safe to do so. There is still trace amounts of leaking occurring along the untightened fittings. Line is still operating and under pressure. There is no damage and cause is undetermined. No evacuation was issued, no injuries to report. Spectra Energy Contact: [REDACTED]	
2010-085	Small overfill drip from temporary office sewage tank. Area has been cleaned and no adverse environmental impacts anticipated. Lead Agency changed to INAC on 4 August 2010.	
2010-089	A leak was detected ant the Gold Creek Compressor Station. A broken 1/2" nipple on the station piping resulted in a small leak of unknown quantity of natural gas. The unit is presently down for repairs. NEB phoned [REDACTED] and was informed technician was to get back to him regarding the reason for failure of the nipple. Once the cause if known, the NEB will be contacted. I will update at that time.	s.19(1)
2010-090	When a technician was probing the atmosphere of the metering station prior to entry, he detected 50% LEL on his gas detector. The metering station was vented and upon investigation a crack was detected on a 25 lb pressure relief valve. System was shut in and Nova Gas is investigation the cause. Product released was sweet natural gas. There was no danger to the public, workers or environment. Amount that was release is unknown at this time.	

2010-091	TNPI received odor complaint near valve site near old country road 19811/ #17. Valve location is Raisin River East. Personal found underground vault contained product. Valve site was shut down at 09:30 EDT. Unsure if product is diesel or gasoline. Rough estimate 100 ltrs outside of vault. There is a sheen 25 ft north of vault and 75 ft south in the road side ditch. Booms are in the area. There is a tile drainage in field. No evidence of product in drain, TNPI will excavate to ensure no product is in drain. Vac truck is on site and vault is partially emptied. Ground is currently saturated in field due to heavy rains. Company Contact: [REDACTED]	s.19(1)
2010-092	At the Cobourg meter station (#2398) a pin hole leak was discovered in the downstream isolation valve. The escaping product is sweet natural gas. Unknown volume of loss. Unsure when leak started. The station has been isolated and the valve will be replaced. There is no threat to the public or environment at this time.	
2010-093	At the monitor station 20 km SE of Consort AB, a vacuum truck was engaged in the removal of a 6" bypass line. The vacuum truck was hooked up to a 1" line to drain the valve. Due to a problem with the hose, about 20 ltrs of crude released onto the ground. The site has since been cleaned up. There was no impacts to the environment and no threat to the public. Company Contact: [REDACTED]	s.19(1)
2010-096	Meter station shut down due to an increase of H2S from the producer. A technician responded and noted that the block valve did not seat resulting in a release of 3 m3 of sweet natural gas to atmosphere. The technician opened and closed the valve and the release stopped. The valve is now operating as it should and is scheduled to be inspected by a valve technician on September 21, 2010. The station is 20 km SE of Carstairs.	
2010-097	Reciprocating engine starter supply line cracked at the 1" nipple. Leak was automatically detected. Undetermined volume of sweet natural gas released. Unit isolated and fitting repaired by responding on-call technician. No impact on people or the environment. The delay was due to the technician not being aware that the release met reporting requirements and reporting was determined 8 Sept. by the regulatory department. Follow-up may be required.	
2010-098	Staff were getting ready to do a pig run and noticed gas bubbling around the pipe. Staff isolated the line. A meeting was scheduled on Monday to discuss the steps forward. Location at the tie -in of the Chinchaga Lateral (12") and the Peace River mail line (30"). Follow-up Monday meeting: GTL is planning to blow down the line and Hydro-vacuum around the line to find the source of the leak. This activity should take place within the next 48 hrs. A preliminary report should be send in on Tuesday.	
2010-101	A ¾ inch plastic Sask-Energy gas line was stroked while conducting Phase 2 construction work at Alida Terminal. At approximately 11:30 - 11:45 am today, while excavating, a track hoe came into contact with a ¾ inch plastic Sask-Energy gas line. Approximately 80 PSI . This line was severed at time of contact . The Alida site was evacuated , Sask-Energy was called to site at which time they clamped the line stopping the gas release . There were no personal injuries or property damage other then the gas line . A further more detailed report will be submitted once the investigation is complete.	
2010-102	An overpressure of 118% (325 psi) was detected by Enbridge's control center when a downstream pump at the Edmonton, AB Terminal pump station tripped and the pipeline shut down. The dispatched operator did not detect any visible leaks and pumping was restarted. PLC work was occurring downstream of the pump station and one of the 4 transmitters was out of the loop, possibly resulting in an erroneous signal sent and causing the overpressure (to be verified). No injuries or impacts were reported.	



2010-103	A contractor doing coating of an above ground facility at the St. George, NB Meter station discovered a bubble leak on a 2" threaded fitting on the filter inlet. In order to fix the problem, the unodorized sweet natural gas at the filter will bypass the filter and be flared. Delivery service will not be interrupted for the repair. No injuries and no impacts reported. Nearest residence is approximately 100 m from the station.
2010-104	An uncontrolled gas release was discovered on 22 September 2010 (time to be provided) during an aerial patrol. The sweet natural gas leak on the NGTL Retlaw South Lateral Loop was confirmed on 23 September 2010 (time to be provided). The location is [REDACTED] The nearest community is Enchant, AB. A 3.7 m diameter zone of dead vegetation above the 8" diameter pipeline is located in a farmer's field, on very wet ground, There is no audible gas releasing and a gas detection reading of 3% of the lower explosive limit (LEL) was measured at the perimeter of the dead vegetation. No gas was detected in the centre of the dead zone. The area has been fenced-off and warning tape put up. TransCanada will alert the previous land owner and the recent new owner. The nearest road is approx 200 m away. There are no near-by residences and TransCanada indicates that there is no threat to the landowner or the public. The line will be shut-in for repairs, possibly next week.
2010-105	A pipeline technician noted dead vegetation on the ROW and further testing confirmed the presence of sweet natural gas. The line will be shut-in and drawn down from the top end. Plans are to daylight the pipe, once a Hydro Vac truck can be moved to the site (Friday - Monday). There is no sign of soil disturbance and a gas detection reading of 6% of the lower explosive limit (LEL) was measured from the soil. They are unable to test atmosphere readings due to the winds in the area. The nearest community is Spirit River, AB approx 65 kms away, no danger to public and the volume lost is u/k.
2010-106	A relief valve was continuously venting sweet natural gas as a result of an up-stream regulator that failed to reseal itself. The technician rotated the valve 90 degrees and it resealed. The relief valve has been replaced and is back in service. Volume released is unknown, no public places nearby and no danger to the public. Release was originally detected by aerial patrol.
2010-107	A pipeline technician discovered a crack in a 1/2" pipe nipple between the fuel gas regulator and the pilot valve. Leak was audible but release was negligible and unknown amount of sweet natural gas was released to atmosphere. The tech isolated the fuel gas run and removed the scheduled 80 pipe nipple and replaced it with scheduled 160 pipe nipple. The fuel gas run was then returned to service. The nearest dwelling was 3 kms north. Detected on a/n date, unknown when it occurred
2010-110	Incident occurred completely within the compressor station yard. Occurred on line 100-1 on the suction side valve. Minor bubbling was discovered at the base of the valve. At the time it was undetermined if it was swamp gas or a leak. Yesterday the pipe was daylighted and found a pin hole leak in the eack weld of the body bleed plug at the bottom of the valve. Weld was grinded out and plug was removed. Applied pipe dope and reinstalled plug. Pipe was recoated and valve returned to service. There is no estimate of product lost.
2010-111	There was a high scrubber alarm at the station. Employee responded and upon arrival discovered venting of gas at the block valve actuator. Block valve was manually opened to stop leak. Station has been returned to service. There is no estimate of lost. No threat to public or environment or infrastructure. [REDACTED]
2010-112	There was a cracked fitting on a fuel gas hose into the engine that runs into the compressor. The engine was shut down, the hose was replace and the engine was started up again. There was no safety or environmental concerns at the time. [REDACTED]

s.16(2)

s.19(1)

s.19(1)

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2010-113	45 minutes North along Alaska HWY @ KM Post 93 in the pigging yard adjacent to the Kobes Compressor Station, a small fire and explosion occurred when pigging crew were preparing to load the pig into the sending barrel. It was a 20" pig and a 20" sending barrel. Source of the ignition is unknown at this time. Fire and explosion was not severe. On crew member did receive singed hair. The crew member was sent to hospital as a precaution and did not require extra medical attention. Crew member was driven by the Compressor Stations operator in a pick-up truck to the hospital. No injuries are reported at this time. No first responders dispatched. No ongoing threat to staff or public. An investigation team for the company is on scene. Company Contact: [REDACTED]	s.19(1)
2010-114	Crude oil spill estimated at 5000 ltrs* at the Nanticoke Refinery. Sample valve was left open off the metre bank. The high level alarm failed to activate. The spill is contained to company property. The oil is in the drainage ditches. The ditches are 3'x3'. There was estimated 1' of water prior to the spill. The ditches have been bermed with sand with absorbent socks placed in front of the berms. The valves in the ditches have been closed to prevent further spread. There is a grass area between the metering facility and the refinery. There is no evidence the oil is moving across the grass from the metering facility to the refinery. The facility neighbors farm land. The nearest resident is 500m. There is one vac truck onsite. One vac truck is ordered for tomorrow along with excavators. 3-4 more vac trucks are expected to be ordered tomorrow for rotation on site. There are no safety concerns at this time. No injuries and no threat to public or ongoing threat to the environment at this time. Company Contact: [REDACTED] *UPDATE by G. Mesar (Jan 12, 2011) - As per the company's Detailed Incident Report - release = 17.5m3 crude oil.	s.19(1)
2010-115	There was a small crude oil leak of .25 ltr. The leak was on the fitting on a body bleed line at the Keystone oil pipeline facility at Edwin MB. It has been repaired. [REDACTED]	s.19(1)
2010-116	There was a natural gas leak at the 3/8 tubing which feeds the heater to the pipeline at the Widdifield Station. No estimated release. No threat to public or environment. It is currently being repaired. [REDACTED] is the company contact.	
2010-117	During start-up of Line 4, an over-pressure of 111.25% was noted at mile marker 100.43. The line was shut down at 21:13. After confirming no leaks were present on the line, a controlled start-up was completed at 23:55. There was no evacuation required, and there were no injuries as a result of this incident. TSB Contact: Darlene Roosenboom, 1-819-997-7887 (Hot Line)	
2010-118	Arc flash caused by water leaking through roof into breaker panel. 100A breaker damaged, but no secondary fire and no injuries.	
2010-119	Confirmed leak of sweet gas at Receipt Meter Station Bayhurst #2, east of Bayhurst Compressor Station #2. Producer has been shut in and line to producer has been isolated. An evacuation was not conducted, and there were no injuries. Not considered an emergency at this time. Investigation is continuing. Spoke with [REDACTED] and received additional information. A 1/2" pressure relief valve had malfunctioned causing the leak. The valve is new and thus warranting further investigation. The local fire department had responded but has stood down. RCMP were also in the area, but traffic is not being re-directed at this time. A Preliminary Incident Report is being produced. 2 miles east of Bayhurst Meter Station / 3 miles west of Liebenthal, SK (~160 km NW of Swift Current, SK)	s.19(1)
2010-120	Approximately 300 litres of produced water and 100 litres of emulsion spilled from a storage tank when a high-level switch failed. Pads were put down in the spill area, with the used pads and contaminated soil being moved to a disposal bin (supplied by RBW). There was no evacuation or injuries. [REDACTED] Senior Area Foreman NT Spill Line #10432	



2010-120	<p>Approximately 300 litres of produced water and 100 litres of emulsion spilled from a storage tank when a high-level switch failed. Pads were put down in the spill area, with the used pads and contaminated soil being moved to a disposal bin (supplied by RBW). There was no evacuation or injuries.</p> <p>██████████ Senior Area Foreman NT Spill Line #10432</p> <p style="text-align: center;">s.19(1)</p>
2010-121	Gas leak from a stainless steel tubing which supply discharge pressure to seal gas terminal in unit B 1. Upon inspection tubing was cracked. Unit was stopped, replaced tubing swage lock fitting, unit was pressurized, leak test done and unit was restarted. Gas release volume unknown. Note: gas detector did not detect leak.
2010-122	Power gas actuator of MLV 19 line 400 froze off. Gas release was reported by a landowner. The actuator was isolated and bypass. Volume of gas release unknown.
2010-123	Sub-contractor staff tripped over strapping and fell from a truck onto the ground. Worker broke his right humerus and lost two teeth. Co-worker call paramedic, first aid was provided, and worker was transported to Fort Neilson hospital. Worker returned to work on modify duty. Investigation was completed and detail report will be send.
2010-124	39 ppm of H2S entered NGTL system at the Gordondale Meter Station. H2S gas from a third party producer was transferred from Westcoast Energy Inc., carrying on business as Spectra Energy Transmission to NOVA Gas Transmission Ltd. (Cut down by TCPL gas Control. No high H2S left NGTL system) Note: call was made at 16:15 and a message left to TCPL rep to get clarification on the last sentence. I did not receive a call back at this time
2010-125	Certificate condition report: 1 tsp. of oil was released from the unit 1 discharge piping expansion loop 1/4 turn isolation NPS #1 vent valve due to oil seeping from the valve stem. No discharges to the ground. Company looking for components to tighten down the packing which should stop the leak. No impact to people, environment or production.
2010-126	Certificate condition report: 1/2 litre oil released from a valve stem. Valve tagged and locked for repair. Occurred at near Odessa, Sask. No impact on environment, people, or production.
2010-127	125 volts DC charging component blew and created an arc flash. No injury
2010-128	Leak from a port of a valve actuator. Leak for approximately one hour. Estimated volume less that 1 cubic meter
2010-129	Fuel gas system grease fitting on valve leaked sweet natural gas. Staff heard hissing noise. Removed insulation and discovered the leak. Valve was isolated. Classic 100 2 inches ball valve. Volume unknown
2010-130	Leak from a discharge valve, inside a building. Low amount release, gas detection alarm did not detect the gas. Leak was detected by staff. Staff took few times to reset the valve.
2010-131	Small leak on half inch pipe PVS connecting filter was noticed by technician. Will be replace today. Volume released unknown

2010-132	Inboard seal of pump number 3 failed at the Cabri pump station, SK. Keystone Oil Control centre in Calgary noticed that pump 3 had stop working. Technician found that the inboard seal had failed. The crude oil release was contained within the pump tank excepted for one litre. No fire, no explosion, no injury. Cabri pump station is located 16 km from the nearest residence.
2010-133	H2S gas was released from a vacuum truck while cleaning up an over filled knock-out drum. During pigging operations while commissioning of the Goodrich Pipeline Extension, acid gas (80% H2s and 20% carbon dioxide liquid form) was used to displace methane. Methane and H2s was flared to a stack and the liquid was recuperated in a knock out drum. An unexpected volume of liquid filled the knock out drum and the operation was stopped. A vacuum truck was called in to remove the liquid. During that operation H2S was vented by the vacuum truck system, the alarm sounded and the operation was shut down for the night. Next morning, Friday November 19th, a scrubber was brought in to remove the H2S from the vacuum truck. The scrubbing operation had to be stop as the solvent for removing H2s was saturated. <div>s.16(2)</div>
2010-135	Spectra Energy Gas control received a sour gas odor complaint at 11:00 MST. Personnel were dispatched to MP 13. of the Grizzly Pipeline south of Tumbler Ridge, B.C. Spectra Energy reports a minor leak from a nipple on a pipeline pressure transmitter at the line break valve. A repair crew is being dispatched from Chetwynd, BC. It is unknown as to how long it has been leaking or how much gas has leaked. The pipeline is still pressured. There is no danger to the public.
2010-136	Certificate OC-51 condition 37 report. TCPL reported drops of oil accumulated on the body-bleed valve on the Unit 5 section valve. The oil was wiped up and the packing nut was tightened.
2010-137	TCPL sent an employee to its Main Line Valve 19 site in response to a noise complaint received at Gas Control. A small gas leak was found on a low pressure regulator. The gas flow was isolated by shutting off the power gas on the valve.
2010-138	Certificate condition report. TCPL reported a sump overflow and release of 200 L of crude oil at its Husky Interconnect Pipeline. The thermal relief valve bled into the sump following a change in product and drop in temperature. A 4' X 8' area was vacuumed up with a vac truck. Newalta looked after the waste materials. No adverse environmental effects anticipated.
2010-139	An overpressure occurred (115%) at the Edmonton Terminal. The operator responded almost immediately to bring the pressure back down. The overpressure is due to equipment failure (valve). On inspection, there were no leaks and no adverse consequences.
2010-140	Imperial Oil Resources reported 150 L of glycol leaked from a partially open valve on a heater block in the central processing facility (CPF), ran down the backside of the compressor building onto the ground. Free fluid was removed with a vac-truck. There is no anticipated adverse environmental impact from this incident.
2010-141	A vent on the compressor leaked and discharged sweet natural gas. The incident was isolated and a crew sent to investigate and make repairs. No danger to the public.
2010-142	Certificate condition report: 1L spill to environment. Pump #3 outboard seal failed.
2010-143	Station relief valve vented for approximately 15 minutes. The valve has been isolated and was secured at 0930 MST.



2010-144	Certificate condition report: A 1/2 inch drain line on pump #1 leaked half a litre of crude oil. The line has been locked out, enclosed and has been repaired.
2010-145	A regulator failed at the Farrel Lake Compressor Station and the pressure release valve opened releasing sweet natural gas. The release lasted 1 hour and 30 minutes.
2010-146	A flare off took place on the 19th and today a black residue was discovered under the snow. The residue consists of 200 L of an aminous solution which will be cleaned and disposed of by a contractor.
2010-147	A call came in to the call centre from a neighboring land owner of a "hissing" sound and a technician was sent to investigate. He found a problem with the relief on first cut of the fuel gas of boiler. Seat was taken out of service and will be repaired tomorrow.
2010-148	Sweet natural gas leak from the blowout valve. The valve has been isolated and repairs will take place shortly. An investigation will take place next week.
2010-149	Manifold 167-20 experienced an overpressure of 10.7% over max operating pressure. This resulted from a sectionalizing valve that was showing closed on the SCADA, resulting in a shutdown of the mainline pump. It was later determined that the valve did not actually close.
2010-150	Uncontrolled sweet gas release occurred when Gas Control attempted to remotely close Valve 119-2 on the TransCanada Mainline. The end-of-station valve was frozen and did not complete the cycle to the closed position. Gas Control continued remote commands until valve closed, with excess gas released to the atmosphere. A third party reported the release to the Ontario Provincial Police, who in turn notified TC Gas Control. A technician was dispatched and the gas power was isolated. The technician disassembled the valve, cleaned it and re-installed it. The power was then restored and the technician confirmed the valve was operating normally. TSB Contact: Glen Pilon (819-210-1174)
2010-152	Technician was performing weekly maintenance check on heat trace wire attached to drain piping under pumps. Under pump #1, tech noticed a trace of oil coating the piping. Approximately 2 ounces of oil on the piping - no contact with the ground. Leak was repaired and piping cleaned. Reported as per Keystone conditions.
2010-153	During the start-up of D Plant the gas starter did not disengage resulting in significant damage to the starter and the release of 2.8m3 of sweet natural gas. It was a Hillier Gas Starter on a RB 211 Unit. No injuries, no ignition.
2010-154	Technician was performing weekly maintenance check and discovered two leaks on train piping under the pump units. Estimated volume: approximately 1-2 ounces from each leak. Staff to inspect further to determine cause.
2010-155	High Gas Leak from the downstream Block Valve caused by heavy ice accumulation around the solenoid. The valve could not cycle properly which caused it to vent sweet natural gas. The valve was manually operated to remove the accumulation of ice and the associated tubing was thawed. Company is reporting a small volume of gas released but the amount is unknown at this time.

2010-156	<p>Staff discovered hydrocarbon in the cooling water that had migrated into the skimming bay which leads to the Peace River. Staff immediately began to remove/skim the hydrocarbons. Unknown if any product made it to the Peace River. Product was C5 Plus - Condensate. Spectra are investigating to determine quantity of product released and has notified BC Ministry of Environment.</p> <p>Follow-up call to with [REDACTED] who provided the following information:</p> <p>-The skimming bay was checked at 1300hrs and there was no evidence of hydrocarbons. Discovered at 1430hrs and isolated by 1500hrs, clean-up commenced immediately and all product was removed from the skimming bay within the next hour. Staff immediately went to the Peace River and there was no evidence that product made it to the river. No sheen on water or banks of river, photos taken and staff monitored the river for signs of hydrocarbons through the night. The outflow/outlet in the skimming bay is below the surface which would have reduced the opportunity for product to leave the bay. BC Environment has not indicated they will attend at this time. While the source was immediately identified and isolated, the cause is still under investigation.</p>
2010-157	When Nova Scotia Power's boiler (receiver) was shut down, the pneumatic pressure sensor closed off the supply which lead to a pressure build-up at the metter station which caused a 1/4 inch pressure relief valve to release a small amount of gas. Valve did not seat properly and when removed and rebuilt, a score was noticed on the seat of the valve. Volume of gas release was estimated to be small and undetermined.
2010-158	Technician went to determine why pumps were not available. It was determined that there had been an arc flash at the electrical control panel (4160 Volt AC). Investigation is underway. No one was present in the immediate area at the time of the electrical fault. There was minimal damage limited to the area of the control panel.
2010-159	A gas leak was detected at a relief valve at the meter station. The amount or duration is unknown. The valve was isolated, repaired and put back into service.
2010-160	A 3/4 inch valve fitting was loose and crude had seeped through the insulation. Fitting was tightened up, resulting in the leak being stopped. It is estimated than less than 1 litre of crude oil has seeped out of the fitting. The spill was cleaned up.
2010-161	A 1/2 inch valve fitting was loose and crude had spilled out. Fitting was tightened up, resulting in the leak being stopped. It is estimated than less than 1 litre of crude oil (several tablespoons)) has seeped out of the fitting. The spill was cleaned up.
2010-162	<p>During commissioning, less than 1 litre of crude oil leaked from a bearing. The spill has now been cleaned up.</p> <p>Reported by [REDACTED]</p>
2010-163	<p>Leak of less than 1 litre occurred from pump drain. Area was cleaned and drain was repaired. No disruption of service.</p> <p>TSB Contact: Glen Pilon ([REDACTED])</p>
2010-164	<p>A probe regulator had failed and the relief valve vented sweet gas. The regulator was replaced and returned to service. The duration of the venting is not known at this time.</p> <p>TSB Contact: Ron Clark (819-997-7887)</p>

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2010-165	Contractor doing an acid gas wash at the permit shack reported a cut above the eye that he believes occurred when he was overcome by H2S and fell. He was sent to hospital and released. A WCB report has been filed and the company is investigating. Operations detected high H2S levels in the area. Shell flushed and washed out to mitigate further H2S in the area. The H2S was "richer" than anticipated, but the company would not provide the TSB with levels and when asked about PPE, the company indicated that they didn't have information on hand regarding the procedures the contractor was working under. (The procedures would outline PPE required.)
2010-167	Overpressure of Line 4 to 129% of MOP. Discovered during a historical record review performed by Enbridge as part of the investigation of incident 2010-102.
2010-168	Overpressure of Line 4 to 112% of MOP. Discovered during a historical record review performed by Enbridge as part of the investigation of incident 2010-102.
2010-169	Overpressure of Line 4 to 115% of MOP. Discovered during a historical record review performed by Enbridge as part of the investigation of incident 2010-102.
2010-170	Overpressure of Line 4 to 121% of MOP. Discovered during a historical record review performed by Enbridge as part of the investigation of incident 2010-102.
2010-171	Overpressure of Line 4 to 110% of MOP. Discovered during a historical record review performed by Enbridge as part of the investigation of incident 2010-102.
2010-172	Overpressure of Line 4 to 110% of MOP. Discovered during a historical record review performed by Enbridge as part of the investigation of incident 2010-102.
2010-173	Overpressure of Line 4 to 121% of MOP. Discovered during a historical record review performed by Enbridge as part of the investigation of incident 2010-102.
2010-174	Overpressure of Line 4 to 115% of MOP. Discovered during a historical record review performed by Enbridge as part of the investigation of incident 2010-102.
2010-175	Overpressure of Line 4 to 111% of MOP. Discovered during a historical record review performed by Enbridge as part of the investigation of incident 2010-102.
2010-176	Overpressure of Line 4 to 113% of MOP. Discovered during a historical record review performed by Enbridge as part of the investigation of incident 2010-102.
2010-177	Overpressure of Line 4 to 119% of MOP. Discovered during a historical record review performed by Enbridge as part of the investigation of incident 2010-102.
2011-001	Certificate condition report: 22 litres of crude oil leaked from a valve stem packing. The site was cleaned up and contaminated soil removed. No injuries. Location: Hardisty, Alberta

2011-002	Certificate condition report: 0.6 litre of oil leaked from a valve during the wet commissioning of pump number 3. Pipeline was not on line. Valve was closed, locked and tagged out of service. Leak was stopped. Oil did not make it to the ground.
2011-003	Flash fire with minor injury. A high liquid alarm from the inlet separator was received. An employee was dispatched and noticed a higher quantity of liquid than normal. He started to drain the liquid into holding tank. While doing so a flash fire occurred and the employee was burned in the lower back. The employee closed the valve and shutdown the metre station. A second employee was dispatched to the metre station at 21:40 MST. The injured employee started driving toward Grande Prairie and met the second employee on the road, he then transferred vehicle and left his truck on the side of the road. Second staff transported him the Queen Elizabeth II (QEII) Hospital in Grande Prairie. They arrived at 23:00 on 8 January at QEII emergency room, was treated and discharged at 01:47 on 9 January. The injury, one inch wide strip burn, is localised to his lower back. Described as a bad sunburn with blisters. Injury was treated with cream and bandage. Employee is back to work on Sunday 9 January 2011
2011-004	Release of 192 m3 sweet natural gas to the atmosphere at start-up of a unit that was being put back in service. The release triggered an emergency shut-down of the station. There was no fire, no threat to personnel or the public.
2011-007	A spill of 4500 litres of 50/50 mix of hydrocarbon and water at the McMahon Gas Plant. A 3" pipe on the hydrocarbon still cracked open. Spill is contained on site and vac-truck is on route to clean-up. There are no injuries to report. No threat to the environment. There are several stakeholders in the area. Stakeholders are not at risk. No potential for spill to migrate of site. <span style="background-color: black; color: black;">[REDACTED]</span> s.19(1)
2011-008	An estimated 1000 cubic meters of sweet natural gas was released. Two calls were placed to TCPL about excessive noise. A responding tech discovered a discharge valve left open. The high pressure switch was full of ice causing faulty operations. No injuries, no fire and no emergency response services involved. Company Contact: <span style="background-color: black; color: black;">[REDACTED]</span> s.19(1)
2011-010	A minor leak was noted at the threaded connection between the pressure transmitter and piping. The transmitter was isolated and the threads were re-taped. The transmitter was put back in service and no further issues detected. Leak possibly caused by vibration at the connection. Less than one litre of crude oil - never hit the ground. Reported as per Keystone conditions.
2011-011	Producer contacted company to advise of venting at meter station. Station was no longer venting when tech arrived and found that a station block valve open solenoid had failed which allowed the block valve to stay open. Cause yet to be determined. No injuries and no evacuation. U/K amount of sweet natural gas released. Duration of venting is also unknown at this time.
2011-012	On January 29, 2011 at 04:02:37, at the end of a jet fuel delivery to Toronto Airport Terminal from Sun-Canadian Pipe Line, TNPI closed Valve 9 at Toronto Airport Junction and Valve 3 at Toronto Airport Terminal on instruction from SCPL. Shortly after this event, SCPL advised that they had a communication failure and were unable to close Valve 10 or shutdown their upstream pump station, which SCPL controls from Waterdown, Ontario. At 04:12:26 SCPL was able to close valve 10. During the interim 10 minute period the pressure within the pipeline segment, located between V9 and V10 rose to a maximum value of 1446 psi. The initial MOP for this portion of the line is 1200psi but a 20% reduction under NEB Order SO-T217-03-2010 places a temporary operating pressure restriction of 932 psi to this piping segment.



2011-013	At 1700hrs an operator was completing maintenance on equipment at the McMahon Plant. At 1900hrs another operator came on shift and found a bleed valve had been left open from the earlier maintenance and propane was venting to atmosphere. The valve was closed - estimated approximately 37, 000 litres of propane vaporized to atmosphere.
2011-014	During start-up of the second pump, there was a sudden surge which caused an arc flash. The flash caused a loud bang and a smoke alarm from the SVC bundle was activated. Staff in Calgary were consulted and the pumps remained running with the station in service. No evacuation, injuries or loss of product. Company reported that this was the first time the second pump was started at this location.
2011-015	A valve (MOV 2040) on the Gibson inlet manifold leaked oil out of the stem packing due to thermal expansion of the oil in the inlet piping. Approximately one litre of oil released. To address the issue, the company reported they have left the upstream valve open to allow for expansion of the oil. Reported as per Keystone condition.
2011-016	A high gas alarm was received from the meter station located at the noted compressor station. Technician found sweet natural gas leaking from the stem packing on both of the first cut regulators. As well, gas was noted leaking from the bonnet from the second regulator on the second cut. Response: the technician tightened the stem packing, as well as the bonnet. No further leaks detected. Estimated 2 m3 of sweet natural gas released.
2011-017	Tech onsite for routine maintenance and noticed a frost-ball at a fitting on a piece of pipe. Once they were able to thaw the frost-ball, it was confirmed natural gas was leaking from a threaded fitting. The site was last visited on Dec 16th and the company estimates approx 2.83 m3 of natural gas was released per day. The company estimates the leak started halfway between Dec 16/2010 and Jan 28/2011. This was not reported to the TSB, it came in on a fax directly to the Board. It is unclear if the company has completed repairs at this time.
2011-018	A release of sweet gas occurred when a release valve blew down for 10 seconds as a result of a power surge that cause the facility to go into fail safe mode.
2011-019	Power outage at pump station due to Arc Flash. No injuries no one present at time of incident .
2011-022	Contractor was loading chemical totes from IOR's warehouse onto a trailer in warehouse yard. While loading, loader operator punctured a tote. This resulted in 1000 litre release of corrosion inhibitor to the ground. Affected area (snow and soil) was cleaned up and removed. OIL anticipates once cleaned up, there will be no adverse affects from the release.
2011-024	While working with a vacuum truck, hose became plugged and resulted in a 300 liter spill of 95% water and 5% MDEA (amine) mixture to the ground. Spill was cleaned up with the vacuum truck.
2011-025	Condition Report: Oil backed up in a drain causing a pressure alarm. One litre of oil was released outside of housing area, and subsequently collected with rags; rags were disposed of properly. NOTE: PUMP STATION #22 IS CRANDALL NOT GRANDALL. TSB Contact: Dan Holbrook ( [REDACTED] 819-997-5920) s.19(1)

2011-026	<p>Technician responding to a high gas alarm determined it was coming from a fuel gas building adjacent to two portable units. Cause was determined to be a metal plug on a differential pressure gauge on a PICO filter. Technician isolated the filter and blew down the valve. One m3 of sweet natural gas is estimated to have been released. There was no impact on Public Safety.</p> <p>TSB Contact: Dan Holbrook (819-997-5920)</p>
2011-027	<p>Pressure relief valve was reported as not functioning (possibly due to a complaint from a member of the public). Technicians were dispatched and found ice had built up under the seat of the valve. The ice was cleared out and the valve returned to normal.</p> <p>Quantity of product released is under investigation.</p> <p>MNP: (b) (6)</p> <p>TSB: Dan Holbrook (b) (6)</p>
2011-029	<p>36" gas line ruptured, with ensuing fire. Line has been isolated and the fire is burning down. Command Post has been set up in Bearmore, ON, and a 4-km evacuation radius has been set up.</p> <p>TSB Contact: Ken Miller (b) (6)</p> <p>Update #2:</p> <p>Per my conversation with (b) (6), TransCanada EOC in Calgary has been activated. (b) (6) is on a conference call.</p> <p>Evacuation radius is 1 km, not 4 km as shown below. Fire is diminishing. (b) (6) has spoken with Ontario Provincial Police.</p> <p>Five (5) technicians are on site. Valve positions are being confirming. Low pressure shut-offs worked as designed. Situation is under control.</p> <p>Per my conversation with (b) (6), TC has not received confirmation as to whether TSB will be sending any one to the site. (Ken Miller will be speaking with (b) (6))</p> <p>A couple of residents on the outskirts of Bearmore voluntarily evacuated, but have since returned to their homes. No forced evacuations took place.</p> <p>The OPP have closed the highway nearby. (The highway is approximately 1 km from the line rupture.)</p> <p>An approximate time for the remaining gas to burn off is not available at this time, but it may be a couple of hours until the fire is out.</p> <p>Update #3:</p> <p>NEB is sending two inspectors to the scene, Robert LeMay and Erin Doerffer are leaving Calgary at 09:30 and should be on site at ~19:00 on February 20th</p> <p>At 01:45, February 20th, (b) (6) (TransCanada) provided the following update:</p> <ul style="list-style-type: none"> <li>- On-site company contact will be (b) (6)</li> <li>- Fire is ongoing - ~40' in the air.</li> <li>- There is no secondary fire.</li> <li>- There is a tie-over valve that is not sealing completely, allowing gas from Line 3 to back-feed into Line 2 and feed the flame.</li> <li>- Once the flame is extinguished, they will work on access to the site, approximately MLV 76+10; exact location will not be confirmed until access is obtained.</li> <li>- From maps, Lines 2+3 are believed to be in the same corridor (~ 9-10 metres apart) while Line 1 is further away. Again this cannot be confirmed until crews confirm exact location.</li> </ul>
2011-030	<p>Technician responding to site found sweet gas venting to atmosphere due to gas leaking from the closed side of an actuator. Found: 1 ( isolation valve did not seat properly; 2) valve was closing at 9 ppm rather than 14 ppm. The plant shut itself in, and there were no fire or safety issues. The technician reset the H2S sensor.</p> <p>TSB Contact: Ken Miller (819-997-7887 / (b) (6))</p>



2011-032	A failure of the fuel gas regulator seat resulted in an overpressure of the boiler fuel gas line and resulted in a 2 hour release of gas through the relief valve. Loss of 3m3 of gas. Regulator seat was repaired and regulator put back in service.
2011-035	A tarp was placed over the caterpillar compressor to keep it warm. The tarp slipped onto the side of the compressor near the manifold and caught fire. Worker driving by noticed the fire and extinguished it. Compressor removed from service. No injuries. Contractor: Ledcor.
2011-036	A gas release from 1/2 inch tubing on a valve actuator at 30 - 50 psi. Leak was detected by a BP operator passing by the valve site and reported to TCPL on the emergency line. Worker responded and shut of the gas supply to prevent further release of gas to atmosphere. Cause unknown.
2011-038	After discovering 4 L of oil in a ditch at the Kinder Morgan Trans Mountain Kamloops Terminal, it was found that the oil was leaking from a small diameter pipe, a return line for waste oil. Excavation has begun around the leak and 1.4 m3 of oil has already been recovered. Kinder Morgan indicates that the oil is contained on site and that there is no impact to surface water and the excavation is not deep enough to affect ground water. Underlying soil is relatively impermeable and the oil appears to be contained in the disturbed trench line. Kinder morgan continues to excavate the contaminated soil.
2011-040	Condition 37 reporting OC-51. Two litres of crude oil leaked to the ground from a stem packing on isolation valve MOV-2040. The crude oil is now cleaned up. TCPL reports no impact to the public or the environment, no fire and no injuries.
2011-041	Oil leaked from a valve stem loose 1-1/2 inch reducer bushing on a body vent valve on a main line side valve at Pump Station #10, Liebenthal, SK. The leak was minor and no oil reached the ground. TCPL reports no impact to the public or environment, no fire or injuries.
2011-042	A third party called NGTL emergency line to report gas venting at a valve site. A technician investigated and confirmed sweet natural gas leaking from a power gas riser. A 1/2' tubing had become unfastened from the power gas filter. The technician immediately closed the 1/2 " power supply gas valve to the filter housing, stopping the leak. The leak was repaired shortly after. No danger to the public.
2011-044	While conducting an investigative dig regarding a dent detected during a pigging operation, employees received an indication of a gas leak - LEL 30%. Company reports the leak was most likely caused by a rock but at this time it is unknown if the leak started prior to the dig or as a result of the excavation. Line was already isolated and the process for repairing the line is underway. Unknown amount of sweet natural gas released. There was no danger to the public.
2011-045	While conducting an investigative dig regarding a dent detected during a pigging operation, employees heard an audible gas leak through the pipe wall. Company reports the leak was most likely caused by rock damage. Pipe was originally laid in sand at this location but over time the sand has washed away exposing the pipe to rock. Unknown amount of sweet natural gas released. There was no danger to the public.

2011-046	A person from an Encana gas plant alerted Spectra Energy of a leak of natural gas from the Yoyo pipeline about [REDACTED] m from the Encana plant. Spectra sent personnel to the site about 52 km east-northeast of Fort Nelson, BC. A culvert surrounding a pipeline tap valve had experienced frost heave, which broke off a nipple from a body blow-down valve. The valve was closed and the line will be depressurized to repair the nipple this week.
2011-047	Condition report. Leak of crude oil from the bearing isolator on the non-drive end of pump #5. Leakage on the outdoor pump and skid was being blown around by a cooling fan. The pump was turned off and the soil will be cleaned up and the pump will be repaired. Estimate a 2 litre loss of product.
2011-048	At 9:58 CDT a land owner reported to Alliance hearing a natural gas leak which occurred on the 36" mainline at KP 1337. [REDACTED] 60 KM south of Regina. The sweet natural gas leak was from a 1/4" fitting feed to the pressure transmitter on mainline block valve (MLBV) 13-1. The line was isolated at 11:15 CDT and repaired at 11:45 CDT. Alliance estimated that the leak had been in progress for up to 62 hours and a maximum of 6 MM cu. feet of gas was lost. Alliance contact is [REDACTED]
2011-050	Condition 37 Reporting Requirement OC-51. Leak of crude oil from the bearing isolator on the non-drive end of pump #4. Leaked on the pump and skid. Estimate a 2 litre loss of crude oil. Did not touch ground. It has been cleaned and repaired. This incident was discovered as an inspection from the 2011-047 incident. Please refer to notes. Both incidents are the same but on different pumps.
2011-051	Condition 37 Reporting Requirement OC-51. Leak of crude oil from the pump seal housing drain tubing. Oil was not flowing at the time. Estimated 2 ltr loss of crude oil. Leaked on pump and base. Did not touch the ground. It has been cleaned up.
2011-052	Condition 37 Reporting Requirement OC-51. Fitting leak of less than .5 litres of crude oil from a flanged fitting. Leaked down side of pump. Did not touch ground. It was discovered during routine maintenance. It has been shut down and isolated and pressure was released. Unit is out of service and in the process of being repaired.
2011-053	There was an uncontrolled release of natural gas estimated at 1000 cubic meters. Technician discovered a leaking unit discharge gage c-clamp. Isolated valve and gage. Removed gage with plug to stop the leak. TCPL is investigating.
2011-054	An employee (welders helper) working for contractor Louisburg left TCPL site in a contractor truck. The truck drove off the ROW and onto the highway. Once on the public road stopped the vehicle and got out to clean his boots in front of the truck. A second contractor truck stopped in front of the already stopped vehicle and backed up. The driver did not see the employee and backed into him causing fatal injuries. This is an unconfirmed report. NGTL Cutbank Project NEB Order XG-N081-19-2010. Further details will be provided when they are available. Alternate contact is [REDACTED] [REDACTED]
2011-055	A natural gas leak occurred on a small threaded line into the filter housing inside the meter station. The line had cracked and released product. It was detected by audible noise noticed by on-site technicians. The line was isolated upstream and downstream within the meter station. Waited for gas to vent and disconnected broken line. Put in pleco plug. TCPL is conducting an investigation and will do a permanent repair.

s.16(2)  
s.19(1)

s.19(1)



2011-056	At the pressure reduction station at the Halifax Lateral a failure of the fuel gas regulator seat resulted in an overpressure of the boiler fuel gas line. It is unknown the estimated release of sweet gas. It was released to atmosphere. Occurred approximately 30 meters from building. No injuries to report, no environmental effects noted. (This is similar to incident 2011-032)
2011-057	On the 3 April 2011, at 13:45 while performing surveillance an IOR operator noticed a release of approximately 3.5m <sup>3</sup> of crude emulsion (1.52m <sup>3</sup> crude oil and 1.98m <sup>3</sup> produced water) to soil from the M-43x underground flowline. The initial volume was report as 1.5 m <sup>3</sup> , however, once IOR was able to access the buried line the revised volume was estimated to be 3.5 m <sup>3</sup> . The M-43x flowline is located on the north side of Bear Island which is in Mackenzie River and within IOR's Norman Wells Operation.
2011-057	On the 3 April 2011, at 13:45 while performing surveillance an IOR operator noticed a release of approximately 3.5m <sup>3</sup> of crude emulsion (1.52m <sup>3</sup> crude oil and 1.98m <sup>3</sup> produced water) to soil from the M-43x underground flowline. The initial volume was report as 1.5 m <sup>3</sup> , however, once IOR was able to access the buried line the revised volume was estimated to be 3.5 m <sup>3</sup> . The M-43x flowline is located on the north side of Bear Island which is in Mackenzie River and within IOR's Norman Wells Operation.
2011-058	At the pressure reduction station at the Halifax Lateral a failure of the fuel gas regulator seat resulted in an overpressure of the boiler fuel gas line. It is unknown the estimated release of sweet gas. It was released to atmosphere. No injuries to report, no environmental effects noted. *This is the same reoccurrence as incident 2011-056
2011-059	A small leak of NGL was detected on the small valve and fitting near unit 2 suction valve. The gas alarm on the adjacent unit activated. Technicians went in with gas detectors and did not detect product where the alarm had activated. Further investigation they discovered the leak. The unit was shut down. Repairs have been completed and in the process of starting unit up again. Unknown estimated loss of product. No injuries reported. s.19(1)
2011-061	Further to investigation digs and cut-out activities between MLV100 and MLV101, a technician was re-pressurizing the section to 100 kpa when he heard gas escaping. Through the use of a snoop bottle, a crack was discovered in the thread of a high pressure warning device. The upstream side of the line was then closed. The line remains out of service due to additional planned investigative digs further downstream. The warning device will be replaced after these additional digs. A preliminary report is expected to be sent tomorrow.
2011-063	Technician on site heard venting of sweet natural gas. Technician found a leak on the 2-3 tie-over valve upstream. There was significant frosting on the end-of-site, end-of-stroke relay, and three-way relay exhaust vents. The technician cycled the auto / normal valve, which stopped some of the venting. The technician then operated the release valve on the regulator, isolated the power, vented the remaining gas, re-pressurized the system, confirmed the venting had stopped, and returned the system to service. TSB Contact: Glen Pilon (819-953-1632)
2011-064	Upstream producer heard gas venting from the location and discovered that the Peace River Mainline #170 relief valve opened prematurely. Pressure was 5312 kPa. The relief valve reclosed at 07:40 when the pressure reached 3400 kPa. Valve was set to open at 5336 kPa and close at 4900 kPa. Upon hearing the release the producer blocked access to the plant. No impact to the plant, people, or environment.

2011-065	A landowner reported oil in a creek near Chip Lake which is approximately 2hrs west of Edmonton. It was suspected the oil was coming from Trans Mountain Pipeline. ERCB contacted Trans Mountain who shut down the line and sent staff to investigate. The location is [REDACTED] Kinder Morgan activated their ERP and an IC Post will be established in Stony Plain. They have 2 OSCARS and a Hydro Vac on route. A further update was received from company staff on site, there is no LEL reading, no H2S but they can smell oil. There is a culvert on Hwy 16 north of the creek and no oil has been detected at this location. TSB, Alberta Environment and the NEB are responding.
2011-066	Acid gas leak at the meter skid going into the acid gas injection well. Line pressure dropped from 765 psi to atmospheric pressure over 300 ft. of 6 inch pipe. Suspect cause a valve stem defect in a 6x4 ball valve. PL and facility isolated and technicians sent to site and confirmed preliminary cause. H2S detection shut down the skid. No population but one industrial plant nearby. Monitoring for H2S.
2011-067	A broken 1/4" nipple on the fuel gas piping release sweet natural gas. Unit was shut down and piping isolated. Repairs were completed and unit on standby pending investigation. No loss of throughput. No threats.
2011-068	Arc flash occurred while workers were completing repairs to an arc flash incident of January. Repairs were just completed, building was empty, and capacitors were being recharged. When the power was shut down, the fuses and capacitors sustained a high voltage fault. One capacitor ruptured and a second one was damaged. Vendor was on site. Cause being investigated.
2011-069	Plant operations found a pressure gauge on the E114 crude chiller in the central processing had failed and was spraying oil on piping and snow covered ground below. The gauge was isolated and flow stopped. The isolation valve for the gauge was found to be partially opened. Four barrels (636 litres) crude oil released, 2 contained in a tray below and 2 sprayed onto piping the snow covered ground. No adverse effects anticipated.
2011-070	There was a small fire and a release of product. No EM services were dispatched. Technician went to investigate gas chromatograph alarm. Could hear leak in building. Discovered a 4" flame coming from 1/4" tubing attached to the chromatograph. Gas was at 15 psi. Technician opened second door to building and flame went out. Gas supply was isolated. Tubing is to be replaced. An investigation will be conducted. Contact [REDACTED]
2011-071	Employee heard a whistling sound, discovered escaping product. Approx 50 cubic meters of sweet natural gas has been released. Gas escaping from a cracked thread on a swedge lock fitting of the c-plant cooler (#13). Gas was isolated from the cooler and allowed to bleed off, C-plant is out of service. No loss of thru-put. No reports of ignition or injuries. Under investigation. [REDACTED]
2011-072	During rounds Field Operator found the surface casing tote on E-36X (mainland) had overfilled, releasing approximate 4m3 of produced water on the ground (1m3 was contained in the surface casing tote). The spill was confined to the well site. Clean up has been initiated and Imperial Oil does not anticipate any adverse effects from this release.
2011-073	Third party, Yellowhead Gas Co-op, notified NGTL of a leak at the Ansell Metre Station at 15:00 MDT on 6 May 2011. An NGTL technician was dispatched and found what appeared to be a crack on a 1/2" ball valve on a small line and made the repair. NGTL estimates 10 m3 of sweet natural gas was released. There is no threat to the public and no service disruption.

s.16(2)

s.19(1)



2011-074	<p>Spill line received a report that approximately 407 litres of crude oil had been discovered at KP 380. The product is contained to an area 60X20 meters on the ROW. Staff are on site and report no hazard to persons or property. Additional staff and equipment will be brought to the site. On call responder contacted the company contact and received the following update:</p> <ul style="list-style-type: none"> <li>- At approx. 1130 hrs today Enbridge received an odour complaint from the Chief of Wrigley</li> <li>- Staff arranged for a helicopter and at approx 1335 hrs confirmed oil on the ROW</li> <li>- Cause is unknown at this time</li> <li>- All oil is contained on the ROW, the oil isn't migrating,</li> <li>- There is a duck pond/slough approx 500 yards away.</li> <li>- No wildlife migratory birds have been impacted.</li> <li>- Enbridge plans to have staff remain on site over night.</li> <li>- The location is approx 3000 yards from the highway. They will need to clear and walk equipment into the site. They also plan to sling some equipment into the site.</li> <li>- The line had been down since the Plains rupture (btb April 29th).</li> </ul>
2011-075	<p>On the 5 May 2011, at 12:53 MST, while Enbridge personnel were manually filling a station sump tank for testing, they unintentionally opened a drain line instead of closing it. This caused overfilling of the sump tank thereby releasing crude oil. The crude oil was contained within the station containment berms. The volume released was 4 m3.</p>
2011-076	<p>Pipeline outage on 7 May 2011 resulted in the closure of MOV 20.4 and 20.42 valves. Oil in the line between the two valves continued to increase in pressure and forced through stand packing. 40 L was released with 10 L spraying onto piping and the ground and 30 L pooling below the leak. Oil and soil have been removed and the area cleaned.</p>
2011-077	<p>A pressure gauge on a pig trap failed which resulted in the release of 10 L of crude oil. The spill was limited to the area of the pig trap and the failed gauge has been isolated. Other similar gauges at the site have also been isolated and cleanup is currently under way.</p>
2011-078	<p>A contractor was installing insulation plating around the Pump #2 discharge valve. The contractor noticed oil weeping around the body of the valve. Volume estimated at 1 teaspoon with no oil reaching the ground. The pump was shut down, the valve closed and an investigation is presently taking place.</p>
2011-081	<p>Approximately two (2) litres of crude oil was released within the terminal. A leak occurred at inlet valve 2003 (with MOV 2030, 2031 and 2003 all closed at the time). Due to warming of oil within the system, the oil leaked through the stem packing. Most of the oil leaked onto the piping (which was subsequently cleaned), and some oil on the ground (which has been removed).</p> <p>Condition 37 Reporting OC-51 <span style="float: right;">s.19(1)</span></p> <p>Company Contact: [REDACTED]</p>
2011-082	<p>A CH2M Hill contract employee passed out while walking on site; appears at this time to be a seizure. An air ambulance has transported the person to the Fort Nelson Hospital.</p> <p>Company Contact: [REDACTED] <span style="float: right;">s.19(1)</span></p> <p>TSB Contact: Glen Pilon (819-953-1632)</p>

2011-084	Gas controlled received an alarm for elevated H2S. Gas control informed producers who shut in pipeline and dispatched technicians to site. H2S valve did not close properly. The power gas isolation valve failed to cycle. Technician cycled valve manually. The valve was tested and returned to service at 12:35 MDT. Contact # [REDACTED]
2011-085	A valve leak was discovered. The leak was monitored. A blow down was conducted and sealant was added. The leak was still present. Yesterday @ 15:45 the line was excavated and a crack was discovered on the transverse weld between the 16" lateral and 2" return run. Either today or tomorrow the section will be completely replaced. Estimated 2 cubic meters was lost. No injuries to report. [REDACTED]
2011-086	Condition 37 Reporting OC-51. During routine inspection 0.1 ltr of crude was found around a fitting in the pump station. None had touched the ground. The fitting was cleaned and taken down for repairs, the mismatched fitting is to be replaced. [REDACTED]
2011-087	Farmer reported bubbles in his field on the pipeline ROW. Crews were dispatched to verify and identify pipeline. Area was cordoned off, line isolated and depressured. Plan is to excavate today June 5, 2011 and investigate . Volume and cause are not known at this time..
2011-088	Condition 37 Reporting OC-51. During routine inspection technician noticed a small seepage ( <100 ml) of crude around a riser piping. Spill stayed on pipe and repairs are being commenced today.
2011-089	A call was received from gas control with odorant alarm. Technician responded and entered the odorant building and discovered sweet natural gas being released on one of the pumps. The bolts on the pump had come lose allowing gas to leak. Pump was placed on stand-by and leak was stopped. An investigation is to follow. LEL detector in the building did not detect any significant levels. Loss of product is estimated to be minimal. [REDACTED] [REDACTED]
2011-090	Update New Information: Fatality. The buggy had slid down the bank and two Cats were brought to pull (D6 Cat) and push (D8 Cat) the buggy back up the berm. Buggy operator then descended to unhook tow chains, D8 Cat bumped the back of the buggy and the buggy operator was caught between the D6 and the buggy, sustaining fatal injuries. Fatality. Site was in control by Aecon and sub-contracted by D.Loewen Enterprise. Sub-contractor employee was scraping material off the berm when buggy slipped off the side of bank. Employee was caught underneath. DC CAT was brought in to pull buggy out. Employee was caught between the CAT and buggy and sustained fatal injuries. Ambulance was called on site. RCMP is on site investigating. Aecon has notified WCB. [REDACTED] [REDACTED]
2011-091	Technician observed an oil stain at the base of ¾" pipe. Approx 100 milliliters of oil had leaked. A small crack was detected in the weld where they weld the bracket on the pipe to secure it to the pump. Pipe was isolated and drained and being repaired. [REDACTED]



2011-092	An instrument line went down at the Taylor Gas Plant causing the plant to shut down. Technicians were aware the acid flare went out when the H2S alarms sounded. It is estimated the flare was for 7-10 minutes. The flare was ignited with flare guns. Plant went into recycle. Cause is still unknown what caused the instrument line error. Estimates are still being calculated. A rough estimate is approx 2 ½ tones of sulfur went out and 0.28 million standard cubic feet of acid gas. Composition was 30% H2S. There was one odour complaint which was phoned into plant security. Plant is now operational. Root cause is under investigation. There was a team of engineers on site all night. [REDACTED] s.19(1)
2011-093	100 millimetre of oil seeped from a flange area while the unit was in operation. Oil did not make it to the ground. Technician tighten the bolt and other loosen bolts and monitored the flange for one hour, no seepage was detected. The flange was also monitored overnight and no seepage was detected. Note: the gasket was not changed.
2011-094	A third party odour complaint was received by the OGC and relayed, leading to a company response. It was determined that the source was a small leak from a 1/2" pipe nipple tied into a gauge on a riser at MP 19 [REDACTED] outside Ft. St. John. The pipe has been isolated and they are investigating and will resume operations when repaired. No volume has been determined at this time. s.16(2)
2011-095	The pump station was switching from suction to discharge when a vibration tripped a relief valve. The valve did not work properly, creating an overpressure of 110% of maximum operating pressure for approximately three (3) seconds. Less than 5 gallons of oil was released into the surge tank as designed. The valve was found to be not fitted properly. The station was shut down and the technicians followed the manufacturer's suggested procedure to restore the valve function. The company expected the station would return to service by 16:10 today.
2011-096	Operations found surface casing tote at E-40 overflowing with approximately 500 L of fluid spilled from surface casing vent. Fluids were confined to well site and cleaned up immediately. IOR does not anticipate adverse effects as a result of this incident. Cause to be determined. Company Contact: [REDACTED] Environmental Advisor [REDACTED] s.19(1)
2011-099	M&NE is preparing a re-coating of several of its stations and, while snooping each station, has detected a number of fugitive emission leaks. This report is for: - 15 June, 2011 from a 1" fitting on a valve at the Grandview Meter Station, St. John N.B.; The total number of leaks at each station and the volumes release is to be determined.
2011-100	M&NE is preparing a re-coating of several of its stations and, while snooping each station, has detected a number of fugitive emission leaks. This report is for: - 22 June, 2011 from 1/2 " tubing MLV 458, Lincoln N.B.; The total number of leaks at the location and the volumes release is to be determined.
2011-101	M&NE is preparing a re-coating of several of its stations and, while snooping each station, has detected a number of fugitive emission leaks. This report is for: - 22 June 2011 from Fredericton Meter Station Pressure Relief System (PRS) , Lincoln, N.B. The total number of leaks at the station and the volumes release is to be determined.

2011-102	M&NE is preparing a re-coating of several of its stations and, while snooping each station, has detected a number of fugitive emission leaks. This report is for: - 23 June 2011 from MLV 387, Gaspereau, N.B. The total number of leaks at each at the site and the volumes release is to be determined.
2011-104	TCPL believes it to be a slow leak; unknown volume and unknown duration. Small natural gas leak in an agricultural field was reported to TransCanada Pipelines by a Quicksilver technician. TCPL dispatched a technician to the site who found dead vegetation but no audible evidence or other visible evidence of a release. TCPL cordoned-off the area and reduced pressure in the line and has begun an investigation. Nearest residence is about 500 m west of the site. TCPL indicates no risk to the public.
2011-105	Blue flame coming from a booster vent valve stack. Technician was doing repeat maintenance on unit 4. While leaving site he noticed a blue flame coming from a booster vent valve stack. Technician closed the valve which extinguish the flame. Unit 4 not operational at the time, NOVA had recently a blow down and some gas remained in the stack. NOVA believes that lightning cause the ignition. Lightings present in the area at that time. No damage, no sign of other ignition. Further inspection scheduled for tomorrow
2011-106	During routine maintenance of the station, bubbling was found coming from an area over the valve that is underground. The valve was excavated on June 21st. A grease fitting head broke off allowing gas to release. Valve was removed and repaired same day. It is suspected freeze and thaw created break of fitting. Estimated release of 2 cubic feet. [REDACTED] s.19(1)
2011-109	During a routine site visit, an operator heard a small gas leak coming from a 12" bypass flange. The operator blew down a 15' section of pipe, isolated the valve and greased it to stop the leak. The site was secured with repair and maintenance anticipated to take place by 23 July 2011. The valve is located in an isolated area and is currently not in service.
2011-110	During mechanical excavation of two 6" pipelines and a power cable, the exposed power cable tightened when contact was made with a track hoe bucket. The GD supervisor checked for cable damage and the cable shorted when moved. All 3 live lines had been previously located and exposed in 3 hydrovac confirmation trenches prior to excavating. The lines were being manually exposed by shovel within 2' and mechanically excavated beyond 2'. The cable diverted from the line at the point where it was struck, this was not indicated during the survey sweep. No injuries took place. This is high potential near miss. Company has forwarded all documents regarding this near miss. NEB satisfied.
2011-111	While doing surveillance, Operations found the surface casing tote at M-10 on Goose Island (GIT 7) had overflowed onto the ground below releasing 128L of crude oil. The spill was confined to site and cleaned up immediately. IOR does not anticipate any adverse effects as a result of the incident.
2011-114	A lightening strike on the cathodic isolation tubing occurred at KP 77 of the Halifax lateral. The site has been isolated, with repairs underway. (Stewiacke is approximately 65 km north-northeast of Halifax, NS.) There was a loss of some sweet natural gas, but the amount has not been determined. Company Contact: [REDACTED] TSB Contact: Glen Pilon; 819-953-1632 s.19(1)



2011-115	<p>While performing coating activities at MLV 518 (100 Mill Road, Flume Ridge, NB), a leak survey was conducted. The survey found leaks at five (5) fittings, with the release being estimated at 0.032 mcf/day for an eight-day period. The leaks have been repaired and work is continuing at the site.</p> <p>TSB Contact: Glen Pilon; 819-210-1174</p> <p>Company Contact: [REDACTED]</p> <p style="text-align: right;">s.19(1)</p>
2011-116	<p>While welding was being done on a 2" station discharge transmitter piping, a 4" flame occurred on the outside of pipe. The torch was turned off and the flame went out (therefore non-sustainable). A mud plug used to contain oil was determined to have dried out, allowing fumes to escape. The pipe was re-injected with nitrogen and the mud plug was replaced. LEL monitoring was conducted, and the work was subsequently completed.</p> <p>Incident occurred at KP 464. [REDACTED]</p> <p>Company contact: [REDACTED]</p> <p>TSB Contact: Glen Pilon; 819-210-1174)</p> <p style="text-align: right;">s.16(2) s.19(1)</p>
2011-119	<p>As part of doing retrofits with the line out of service at Monitoring Pump Station #7 / KP 105. [REDACTED] (Oyen, AB), welding was being done in conjunction with mud plugs. A small fire occurred, which immediately extinguished itself when the welding was stopped. LEL monitoring is continuing. It is suspected the pipe heated up, the mud plugs separated from the pipe wall, and the residual oil in the pipeline provided a fuel source. After the purge was finished, the work was completed. No safety concerns were identified.</p> <p>TSB Contact: Darlene Roosenboom; 819-953-1635 / [REDACTED]</p> <p>Company Contact: [REDACTED]</p> <p style="text-align: right;">s.16(2) s.19(1)</p>
2011-120	<p>A small fire occurred while welding a tap on a previously plugged and tested section of pipe at Pump Station #8 / KP 163 [REDACTED] (Oyen, AB). The flame was noticed beside the flange, and when the work stopped, the fire extinguished itself. The work was completed and the incident is under investigation. No injuries were reported.</p> <p>TSB Contact: Darlene Roosenboom (819-953-1635 / [REDACTED])</p> <p>Company Contact: [REDACTED]</p> <p style="text-align: right;">s.16(2) s.19(1)</p>
2011-125	<p>A technician was investigating a short in an electrical services building when a paper air filter came loos, touched the heating element and caught on fire. The fire was extinguished and the company is investigatirng.</p>
2011-126	<p>A release of 3.5 m3 crude emulsion (oil &amp; water) to the surface (land) from an underground flow line. Release confined to soil with no product reaching the water - 200 metres from Bosworth Cr. &amp; 70 metres from Mackenzie R. Flow line is being purged of fluids and isolated. IORL is investigating to determine line failure and total volume of release and don't anticipate any adverse environmental effects.</p> <p>Spill # 11-327</p> <p>Water Licence SO3L1-001</p> <p>Spill # 11-327</p> <p>Water Licence SO3L1-001</p>
2011-127	<p>Natural sweet gas was venting from a meter station. TCPL gas control received a call from a producer, who heard a hissing sound from the meter station. Technician was dispatched with a gas detector. Gas was venting through a tubing outside the meter station. No gas leak was found in the building, the gas sampler had ice build-up and the gas was diverted outside the building. The system was isolated. TCPL is considering replacement of the gas sampler.</p>

2011-129	Over pressure. All communications were lost with the Toronto North Station when a contractor working on a subway station cut a local communication cable. The station was isolated as a preventive measure. Upon arrival to the station the technician noticed a mist of oil. Two thermal release valves, one on the pump and one on the feeder line, did not release causing an overpressure. Communication with the station was re-established at 17:00 on 2011-08-16. Technician release the pressure. Testing company for the thermal release valves are scheduled for Wednesday 2011-08-18.
2011-130	Releasing ± 20 litres of Vision Max solution On August 19, 2011 while unloading spray skid from broken down truck, the fitting on the bottom of the tank broke releasing ± 20 litres of Vision Max solution (4L on Vision Max / 1000L of freshwater) on to the ground below. The release was confined to site (in parking lot where the truck was being unloaded.. Absorbent pads were used to soak up liquid, and affected soil will be removed and placed in a separate containment in IOR's waste yard. IOR does to anticipate any adverse effects as a result of his incident. NWT Pesticide Application Permit No: P4-1102 -Imperial Oil Resources. NWT Pesticide Application Permit No: P4-B-1102 - Ace Vegetation.
2011-131	Saskatchewan Power was re-energizing the Power Supply to compressor station 17 and caused the transformer to blow and catch fire. The fire self extinguished. Less that 1 litre of oil leaked unto the ground from a small compressor. The station is in lock-down.
2011-132	A contractor traced a short (blown fuse) to the control wiring in the furnace section of the make-up air unit. When the burner unit was opened it was discovered that fire had come outside of the fire box and damaged some of the control wiring. The fire was already out. The unit is locked and tagged - to be repaired. There was no disruption to service.
2011-133	During maintenance, the main breaker on one of the generators showed signs of arcing. The associated wiring and breaker showed evidence of overheating, but no evidence of fire. The generator has been locked out for repair. There was no disruption to service.
2011-134	Third party contractors were using a Rhino machine for harrowing top soil, approx 30m from a grid road. The check engine light came on and the driver attempted to move the machine closer to the road. A small fire was detected under the console. The machine was shut off and the fire was extinguished. [REDACTED]
2011-135	A construction team during activity of building a new tie-in to the Gold Creek lateral heard gas escaping from an open excavation area. The area was evacuated. The plant and line were shut down. There were no injuries or immediate risk to the public. It was a through-wall leak originating from the bottom of the pipe of the lateral. All construction has stopped until the line is repaired. The section that has been excavated will be inspected before construction resumes. [REDACTED]
2011-136	Contract worker was injured when he jumped from a vehicle that was out of control due to a mechanical failure. The third party contractor had been brushing and drilling for adodes, had finished and was demobilizing. Something went wrong with one of the timberjacks as they were moving off the right-of-way and the operator lost control and jumped free of the vehicle as it was heading toward a ditch. Operator was taken to hospital and treated for a broken arm, sprained ankle and cuts to the head requiring stitches. No loss of consciousness and worker was cleared from hospital the same day. This is a lost time injury.

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2011-137	<p>IOR operator discovered the sump in the produced water building had overflowed. The operator placed containment trays underneath the building. A total release was estimated at 780 ltrs. 620 ltrs was released into containment and 160 ltrs released to ground below. Spill was confined to the Central Processing Facility. Affected soil will be cleaned up and disposed of. Cause was human error. No adverse effects expected. Water License # S03L1-001 [REDACTED] s.19(1)</p>
2011-138	<p>A leak was detected by a third party working close by. They heard the relief valve go off and contacted gas control. The on-call technician identified the relief valve that was venting from ½" tubing. It is estimated it vented for 2 hours. Approx 7000 cubic meters of sweet natural gas was vented. It has been repaired and the meter station is back in service. No adverse effects. [REDACTED] s.19(1)</p>
2011-141	<p>Employees working at the site as part of the recoating program identified a gas leak coming from the threads on a ¼ fitting. Product is sweet natural gas. Unknown how long it has been leaking or how much gas was released. No further information provided.</p>
2011-142	<p>Employees working at the site as part of the recoating program identified a gas leak coming from a 1 inch fitting on a gas power supply. Product is sweet natural gas. Unknown how long it has been leaking or how much gas was released. No further information provided.</p>
2011-143	<p>Employees working at the site as part of the recoating program identified a gas leak coming from a 1 inch fitting on a gas power supply. Product is sweet natural gas. Unknown how long it has been leaking or how much gas was released. No further information provided.</p>
2011-144	<p>While moving the rig, employees heard a loud bang. Crew members then found a large crack on the gusset of the A-leg frame. Investigation ongoing to determine the cause. Incident reported directly to the NEB-CoR Team. No injuries, the rig is presently down until investigation is complete and repairs are made.</p>
2011-145	<p>130 liters of Oil from the blow case was carried up the vent stack and sprayed onto the ground below. Clean up is in progress. Cause to be determined, investigation currently underway.</p>
2011-146	<p>Construction crew welding using an internal clamp powered by an air compressor. While switching compressors, a small flash fire occurred inside the pipe. the fire lasted 30 seconds before going out on its own. No injuries, some damage to the internal clamp. Work has stopped and the incident is under investigation</p>
2011-148	<p>A gas supply line to the Town of Norman Wells developed a leak on an IOR lease near the LT-11 Satellite Building. The release lasted approximately 6 minutes with an unknown volume released. The area was temporarily evacuated and the source was isolated, no assistance was required and there are no anticipated adverse effect. IOR is investigating the root cause.</p>
2011-150	<p>Work was being done following upgrade construction when a backhoe struck a 12' crude oil pipeline. There was no loss of containment however it appears the pipeline may have been dented by the line strike, assessment is taking place and the line is still operating. The incident took place on the receipt side of the terminal and therefore the line is operating at roughly 15 psi.</p>

2011-151	An electrical power failure to the IOR Norman Wells field operations resulted in an interruption to production and loss of electrical power to the Town of Norman Wells. The Town has started up its own generator this morning and IOR expects to start up one of three turbines and initiate production from Artificial Island #3 by noon today. IOR indicates that it has approximately 12 hours of natural gas supply available for the Town and will be able to continue supplying the Town once Island #3 production is initiated. An electrical contractor being sent to Norman Wells, will investigate the cause of the power failure. IOR will implement its normal start-up procedures and does not expect any integrity or environmental impact issues.
2011-152	During routine maintenance the station experienced an emergency shutdown due to a high gas alarm. Investigation revealed a nipple valve had broken causing a slow leak resulting in the alarm. The valve has been replaced and the station is back in service. Unknown amount of sweet natural gas released.
2011-153	A technician discovered a small leak on the grease button of a 2" valve. The valve was on the outlet to the filter of the station. Grease was applied to stop the leak. The product released was unscented natural gas. Company Contact: [REDACTED] s.19(1) TSB Contact: Dan Holbrook
2011-154	Technician discovered a cracked 3" stainless steel tube between the discharge pipe and the discharge pressurization transmitter. The unit was shut down, the booster was depressurized, the cracked tubing was replaced, and the unit was restarted. No leak was observed. Company Contact: [REDACTED] TSB Contact: Dan Holbrook (819-997-5920) s.19(1)
2011-155	When technician arrived on site, he heard a noise and proceeded to isolate the power gas line for MLV 130-2. It is unknown how long it has been leaking or how much gas was released. There was no impact to the public, and no impact to throughput. No further information provided. (Sweet Natural Gas) Company Contact: [REDACTED] s.19(1) TSB Contact: Darlene Roosenboom; 819-953-1635 / [REDACTED]
2011-156	A corrosion leak occurred in an above ground drain line from the group separator to the water storage tank. Approximately 10 m3 of produced water drained into the holding pond designed for such an occurrence. Water will be pumped out of the pond in January 2012 [and trucked to an approved waste handling facility such as CCS Rainbow Lake, AB].
2011-157	Fatality. Contractor employee was cutting grass on the right-of-way when he drove off the retaining wall of the St-Clair River. He fell onto the embankment and was pinned under the mower. The employee, from Braun-valley Associate employee, was transported to a Sarnia hospital and was declared death. There was no witness to the accident. A nearby landowner when looking after the contractor when he noticed that the employee was not coming back out the right of way. The pipeline operated by Enbridge gas Distribution is located across the St-Clair River between Michigan state and Ontario. Note: Enbridge reported the incident to the NEB first and then to the TSB. Enbridge notified Ontario Minister of Labour, Ontario Provincial Police, and the coroner. The mower was removed from the incident site by the Ontario Minister of Labour.



2011-158	Gage on top of the valve of a propane tank failed. Technician was preparing to start a thermo electric generator at a remote valve site. The gage on top of the valve of a propane tank failed releasing half a cubic litre to atmosphere. Technician closed the valve. Gage needs to be replaced. No injury, no environmental contamination. Note: Spill was reported to both the spill line and the TSB.
2011-158	Gage on top of the valve of a propane tank failed. Technician was preparing to start a thermo electric generator at a remote valve site. The gage on top of the valve of a propane tank failed releasing half a cubic litre to atmosphere. Technician closed the valve. Gage needs to be replaced. No injury, no environmental contamination. Note: Spill was reported to both the spill line and the TSB.
2011-160	Brine stringer damage on Well EO-1 (License 4327). The incident occurred when the cavern emergency shutdown valves (ESDV) were activated on high brine pressure. The Operator isolated the brine master valve in addition to the ESDV, which both remain closed . Detail on the situation are as follows: The cavern is in propane service with inventory at 42,433 m3. Cavern E-1 last workover and nitrogen M.I.T. in 2009. BP is developing a plan to empty the cavern. The plan will cover brine piping fit for service and monitoring pressure conditions that could result in cavern fracture. BP will provide appropriate notification to Ministry when BP has completed its plans and developed a brine string replacement program. Note: the notification was send by letter to the Ministry of Natural Resources, Petroleum Resource Centre attention to [REDACTED] and c.c to NEB staff Henry Simoneau.  s.19(1)
2011-162	An Enbridge Supervisor reported a release of 0.5 litres of propane, due to a failed valve stem, at remote valve site kp 228, approximately 78 km north of Wrigley, NT
2011-163	While working on a thermal electric generator, employee noticed a propane leak from the expansion tank spit valve. Approx 1 L of propane was lost. There were no injuries. The faulty spit valve is being replaced.
2011-165	During scheduled work on Line 1 of instillation of a sectioning valve, the line was shut down at 11:30 MDT. At 19:10 section valve and line were put in place. During pre-heating with a tagger torch at the weld a small pop was heard and a small flame was ignited and extinguished itself. Area was evacuated and staff stayed away for 15 mins. There was no need for a fire extinguisher. There was confirmation that there was no product in the pipe. Inspection of mud plug determined it was ok and functional. It is suspected that methyl-hydrate was trapped in valve from manufacturer. [REDACTED] [REDACTED] s.19(1)
2011-166	At the Gem South Meter Station a technician went for a routine visit. On arrival air monitoring in the station detected a gas reading. The building was vented. On approach a faulty regulator was discovered. The regulator was a Fisher 1301G ¼"NPT. It was removed and replaced. The last inspection was July 6th. Estimated loss of 1 cubic metre. [REDACTED] s.19(1)
2011-167	TransCanada staff were hydro testing at the noted location when a generator being used to run the pump had an electrical short. There was no open fire and no injuries.
2011-168	Technician responded to a fire alarm at the station. Upon entry could smell something burning and heard a noise coming from the UPS. Tech removed a panel to expose the battery and saw flames/smoke. A fire extinguisher was used to put the fire out. The battery bank was disconnected and removed - no other fire. No injuries, no other responders. NOTE: Location : Ease Kootenay Exchange Meter Stn

2011-169	<p>During aerial surveillance, two oil stains were noted on Goose Island. Line O18X was identified purged clear of liquids and shut-in. Cause of release and quantity unknown.</p> <p>A phone call to company contact obtained further information. The size of the two stains are each approx. 5 feet across and are separated by 6 yards. It is an underground emulsion line containing a mixture of oil and produced water. The spills are contained on the ROW and are not threatening a water body. The nearest water body is approx. 300 meters away and the Mackenzie River is over 400 meters away. There is a loader on the island that can be used to remove surface product (much is frozen) and other work will be done by hand. There is no hydrovac truck on the island and it will be January before one can be brought over. Waste disposal containers are available on the island and will be used to store the product and contaminated soil.</p>
2011-171	2 inches valve leaking. A third party reported to gas control a leak at the meter station. Technician found a 2" valve leaking. Valve was isolated. Estimated volume 50 m3.
2011-172	Relief valve venting. A third party reported to gas control that gas was venting at the meter station. Technician found a relief valve venting due to a regulator malfunction. Valve was isolated. No estimated volume.
2011-173	A broken fitting on the turbine on Unit 1-A elbow resulted in an approximate 6 hour release of natural gas. An estimated 4 m3 gas was released. A technician repaired it. No loss of throughput. No danger to the public, no injuries.
2011-174	Gas Control registered a Unit shut-down due to high temperature on a turbine. An oil mist at a leaking exhaust gasket resulted in a flash fire underneath the insulating blanket (cladding). Repair was expected to take about a week. Nearest residence is less than 1 km. No loss of throughput. No danger to the public, no injuries.
2011-175	At 12:42 MST, while upgrading the programmable logic control (PLC) at Portage La Prairie, MB Pump Station 25 (KP 2099.█), a valve closure occurred causing a back-up all the way to the Hardisty, AB Terminal. Pressure at Hardisty briefly reached 2096 kPa; 110.34% above normal operating pressure. SCADA showed only a brief overpressure, dropping back to normal in under 1 minute. Pump Station 22 (KP 939.█) at Crandall, MB registered high suction causing the line to shut-down. Excess oil was released to a tank at Hardisty Terminal. No product was released. Line is expected to be shut down for about 4 hours or more while TransCanada investigates the cause.
2011-177	During a welding operation on a blind flange, gas seeping through an isolation valve ignited. Extinguisher was used to put out the fire. No injury, no property damage, no estimated volume of gas release.
2011-178	During a purge and load activity a leak was discovered coming from a crack in a threaded fitting on a pressure warning device on MLV 120-2-UB toilet seat assembly. Technician locked out the jumper assembly - vented gas to atmosphere, removed and sent the assembly to North Bay for repair. No impacts on people or the environment.
2011-179	A landowner heard noise from the pipeline and called the emergency line. Technicians attended and confirmed a leak. Pipeline was shut down. There was a depression around the site. Technicians dispatched to conduct a dig tomorrow (7 Dec 2011). The lateral ties into 2 producers.

s.16(2)



2011-180	A release of about 3m3 crude oil was discovered coming from the packing on a station valve by an operator during a routine inspection. Line 2 was shut down. Oil was confined to an excavation around the valve that was for an unrelated maintenance matter. Company is cleaning up the oil and water.
2011-183	2 cubic meters of crude oil was released onto the ground/gravel at the truck loading facility. It was due to 3rd party damage from Johnston Tank Truck Limited. When truck driver arrived on site, he did not put the parking brake on. The truck rolled back during transfer and hose disconnected and resulted in release of product. [REDACTED]
2011-184	Incident involves a 3rd party contractor, Dart Services Limited. Contractor was on facility installing screw piles. Machine head being used came into contact with threaded nipple and valve assembly on 4" facility pipe. As a result 2 barrels of crude was sprayed and released. The spill was contained to property. The spray affected 20 m of ground surface. One worker was sprayed with crude oil. The proper PPE was worn and no injuries to report. A vac truck is on site. Clean up has begun. [REDACTED]
2011-185	Release of sweet natural gas. A technician on site heard an audible gas leak in station yard. Found the nipple on the bottom of the line 1 power gas filter housing had broken off and was leaking gas. He isolated it by turning off the upstream and downstream valves to stop the leak. Repairs are underway. [REDACTED]
2011-186	A natural gas odor complaint report was received by the company from the Saint John Fire Department. Two technicians were dispatched to Beavercourt Meter Station where they discovered gas flowing from a relief valve inside the compound. The valve was isolated and the flow was stopped., no estimate of volume released at this time.
2012-002	Company techs were onsite to investigate why the C-Plant would not start and determined the power gas vent valve was frozen and sweet natural gas was venting to atmosphere. Release volume estimated at 55.4 10(3) m3. Repairs/investigation to be conducted. (Note: In MOE email regarding this incident, it was reported the occurrence date as possibly Dec 23/2011)
2012-003	Company tech was responding to a report of a gas release and observed one of the regulators was frozen and sweet natural gas escaping from a grease fitting. The tech isolated the gas source, disconnected the tubing, cleared the valve of ice/moisture and returned the valve to service. Release volume estimated at 6 m3.
2012-004	Over Pressure. The operator was trying to swing the main line unit online when the unit failed to start. Pressure travelled back to the terminal and over-pressured the terminal piping. The normal max is 275 psi, the o/p went to 318 psi before shut-down. The pipes involved are in the terminal - size of pipes unknown at time of reporting. The product is usually crude oil but this has not been confirmed. Enbridge is still investigating why the unit failed to start. No release, no injuries, pipes to be visually inspected prior to restart.

s.19(1)

2012-005	Louisburg is the prime contractor for the Horne River Pipeline project currently under construction by TCPL. At the Louisburg staging yard (non-TCPL property) Louisburg workers were re-spooling a cable onto a side boom when the counter weight activation lever was accidentally engaged. The counter weight struck two Louisburg employees. One worker received minor injuries, however the second worker sustained fractures to the tibia and fibula bones and was evacuated to the hospital. The side boom was stabilized and there was no further threat to workers or the public. Worksafe BC was contacted and is on-site on 9th January 2012 conducting its investigation. Louisburg is also conducting an investigation and will report its findings to TCPL. The workers leg bones have been set but no word if the worker has been released from the hospital.
2012-006	TCPL gas control detected a pressure drop at the Coburg station and then received a phone call from a landowner who reported the sound of gas venting from the compressor station. TCPL dispatched a technician to the compressor station and determined that the station had shut down automatically according to design, but one 8-inch valve did not fully close. Gas that was contained within the station piping was vented to atmosphere. No gas contained within the mainline outside of the station was released. No estimated release volume however the venting was less than 5 minutes. TCPL will file the preliminary incident report with more details.
2012-007	At approximately 07:30 PST, Spectra Energy gas control received a phone call from a third party to report an odour in the area of line break valve #7 on the 20" Grizzly sour gas pipeline. Spectra dispatched 2 technicians to the site. The technicians discovered a leaking transmitter on the line break valve within a building. The transmitter was replaced. There was no estimate on the volume of sour gas released. There was no shut down of the facilities, no fire or explosion, no environmental effects, no injuries and no emergency responders involved.
2012-008	<p>Cavern emergency shutdown valves (ESDV) were activated on high brine pressure. Operator isolated the brine master valve in addition to the ESDV, which both remain closed. The cavern is in propane service with inventory at 6,570 m3. Cavern 1-4 last workover was 2005 and last nitrogen M.I.T. in 2010. BP is developing a plan to empty the cavern. The plan will cover brine piping fit for service and monitoring pressure conditions that could result in cavern fracture.</p> <p>BP will provide appropriate notification when we have completed our plans and developed a brine string replacement program. s.19(1)</p> <p>Company Contact: [REDACTED] Team Lead, BP Canada Energy, Windsor Storage Terminal; [REDACTED] bp.com; [REDACTED]</p> <p>Per OGSRA Operating Standard v 2.0, Section 10.3 Reporting (iii) and CSA Z341.2, notification provided of brine stringer damage on Well 10-4 (License T004681).</p>
2012-009	<p>Pig in heavy oil and the shutdown of the Darfield Pump Station (East of Darfield; Km Post 742) caused an overpressure at the Blackpool Pump Station. (Line has a NEB pressure restriction from the former maximum of 7,439 kpa to 5,661 kpa. Exceedence of pressure was 6,301 kpa.)</p> <p>TSB Contact: Dan Holbrook ([REDACTED])</p> <p>Company Contact: [REDACTED] (Director, EHS, Kinder Morgan Canada; [REDACTED])</p> <p>Blackpool Pump Station (11 km south of Clearwater, BC; Km Post 709. [REDACTED])</p> <p style="text-align: right;">s.16(2) s.19(1)</p>
2012-010	<p>An unknown amount of sweet natural gas was released when a starter gas relief valve failed. There was no ignition, no impact, and no loss of throughput. The valve has been shipped to repair shop.</p> <p>TSB Contact: Glen Pilon (Hot Line 819-997-7887)</p> <p>Company Contact: [REDACTED] s.19(1)</p>



2012-011	<p>A welder employed by Louisburg Pipeline Inc. was preparing to cut a joint with oxyacetylene cutter. A hose blew out from the regulator, and a small fire ensued in the hose. Fellow employee turned off the oxygen and the fire auto-extinguished. No injuries.</p> <p>TSB Contact: Dan Holbrook (Hot Line 819-997-7887)</p> <p>Company Contact: [REDACTED] s.19(1)</p>
2012-013	<p>A small generator mounted to a Louisburg Pipeline Inc. vehicle caught fire. Fire extinguishers were used but were not successful. Fire was eventually put out. No injuries.</p> <p>TSB Contact: Dan Holbrook (Hot Line 819-997-7887)</p> <p>Company Contact: [REDACTED] s.19(1)</p>
2012-014	<p>A third-party person was starting a Herman-Nelson heater when it caught fire. Flames were noticed and heater was unplugged. A fire extinguisher was used to put out the fire. No injuries.</p> <p>TSB Contact: Dan Holbrook (Hot Line 819-997-7887)</p> <p>Company Contact: [REDACTED] (Compliance Engineer; [REDACTED]) s.19(1)</p>
2012-015	<p>An employee/contractor for Louisburg Pipeline Inc. (a welders helper) was preheating pipe when he unknowing lit his pants on fire. Another employee saw what happened and rolled him snow. There are no injuries to report. There is no damage to report. [REDACTED] s.19(1)</p>
2012-016	<p>Large release of product occurred during a delivery receipt with alarms received at 03:40, 05:10 and 06:47. Worker went to site at 07:50 and confirmed oil coming from the roof drain valve. H2S and benzene levels checked and worker was able to close the valve and stop the release. Estimate 110 m3 oil is contained within the tank berm. Odor complaints have been received so the company will apply foam to reduce the odor. Vac trucks are on site. Estimate 2 to 3 days to remove the free product. Product covers 20x80 ft. within the berm. The NEB is sending personnel to site. The incident command center has been established at site. Company provided the NEB with early notification of a potential release at 09:16 with the confirmation received from the TSB at 10:21 MST. KMC Calgary is contacting local agencies regarding the ERP. KM conducted an integrity test of the lined berm last year so expect it to perform as designed. Currently the release is fully contained with no migration observed. No other agencies on site and currently only Kinder Morgan personnel on site. All safety precautions being taken. Monitoring for benzene, LEL's and H2S. Safety plan being developed. Weather - Rain. Working to the company's benefit as it is keeping the oil suspended allowing for easier recovery.</p>
2012-017	<p>Fire occurred when propane tank leaked when contractor used propane torch to melt ice and the propane leak ignited. Extinguisher used to put out fire. Tank and torch tagged out of service. It was -31c. Horn River pipeline project. GC-117</p>
2012-018	<p>Fire occurred when a hydraulic hose on the arm of an loader leaked oil while placing brush on a burning brush pile. Brush was being cleared during the day and burned at night with loader tending the burn piles. Loader moved away from the pile and oil sprayed on the ground and caught fire. Extinguisher was used to extinguish the fire. Loader tagged out of service.</p>
2012-019	<p>Sweet natural gas was released through a stem valve. Leak discovered during routine inspection with the last inspection 3 weeks ago - no leak detected.</p>

2012-020	During clearing, worker was seriously injured when a logger felled a tree in the workers direction and a branch struck the worker in the head. Worker briefly lost consciousness. The medic performed first aid and worker was sent to the hospital in Fort McMurray and released the next day. Worker is on light duty.
2012-021	Gas leaking from pig receiver door. Technician was performing pre-work for up-coming in-line inspection and found that the pig receiver door had a small leak. On 2012-02-03 the O ring was replaced, the door was closed, and the trap was re-pressured resulting in no more leaks. Volume negligible, no injury, no fatality.
2012-022	Heating torch leak and caught on fire. Contractor worker was heating a pipe with a heating torch when he noticed a leak near the head of the torch. Worker put his glove over the leak and when he moved his glove the gas ignited and the glove caught on fire. The worker dropped his glove in the snow. No injury.
2012-023	A fire occurred on a copper bus between the overhead airbrake switch and circuit switcher. The fire-department is on site. Fire is currently still going. Technicians are in the process of opening the switch which will cut power out to diminish the electrical fire. The fire is located to the circuits at the back of the building. Damage has not been determined at this point. There is no additional threat to the rest of the facility. The nearest residence is 1 home across the street from the station approx 150-200 m away. There is no current threat to landowners. The station is currently shut down. The station will be by-passed which will result in reduced to flow to Line 7. [REDACTED] Fire was put out at 22:25 EST s.19(1)
2012-024	Fire. Technician on was on site doing maintenance and repairs. While heating a flange using a portable propane heater, the heater was left on for 5 minutes. The ducting hose caught fire from the heater. The heater was unplugged and the fire was extinguished. The only damaged was contained to the duct hose. No injuries to report. [REDACTED] s.19(1)
2012-026	Worker injury. A worker was knocked down due to H2S exposure. The worker had received the pig and removed from barrel, the barrel was closed and purged. Working was walking behind the pig and passed out. The worker is currently stable and under observations at the hospital. [REDACTED] [REDACTED] s.19(1)
2012-027	Technician on site noticed the 52 A-Plant fuel gas relief valve was venting sweet natural gas to atmosphere. The release was eliminated by adjusting the upstream regulator from 3550 kPa to 3375 kPa.
2012-028	MLV 52-1 was venting from the power operator gas used to cycle the valve. The technician adjusted the stops on the valve manually, eliminating the problem. Nearest occupancy is a restaurant about 5 km away. There were no calls from the public, no injuries.
2012-029	Technician on site at the Fredericton PRS (outskirts of Fredericton) noticed ice around the relief valve from a 'miniscule' sweet natural gas leak. Leak is being repaired. No injuries, no fire or loss of throughput reported.
2012-031	A small fire occurred when a technician left a clipboard on top of a jet after completing a 2000-hour borescope inspection and the unit was restarted. The fire was detected by two fire eyes resulting in an emergency shut-down of the unit. The technician put the fire out and wetted down the area, reset the fire eyes and emergency shut-down control and re-started the unit. There was no secondary damage or evacuation of people. 13,000 m3 of natural gas from the compressor and unit piping was released to atmosphere.



2012-032	Leak discovered on ½" needle valve on the b-plant discharge piping. Technician was doing maintenance and discovered leak. He blew it down and removed from service and repaired it. The cause of the leak was a crack in the needle valve.
2012-036	Release of sweet natural gas, estimated loss of 1200 cubic feet. Employee heard leak from region over head. The area was shut down and depressurized. The overhead piping was cut out and replaced. Testing of the old piping concluded a .025 pinhole leak. Note: 1200 cubic feet ~ 34 cubic metres.
2012-037	Line strike occurred by a backhoe bucket during excavation of a 16 inch line during planned inspection operations. The strike resulted in a dent 151mm long, 144mm wide and 6.3 mm deep which had a gouge in the middle. The gouge was ground out and inspected using non-destructive methods, a U-Clamp was then applied. No release of product took place.
2012-038	A meter regulator failed at the Flat Lake station, which is in a remote location in northern Alberta. Sweet natural gas vented through a 1/8 - inch line on a power valve. NGTL isolated the valve and it is currently waiting for repair. There were no injuries, no fire, no environmental effects and no emergency response required.
2012-040	A vent valve was inadvertently closed which resulted in 1400 m3 of sweet power gas being released to atmosphere. The TCPL technician isolated the vent valve and it is currently out of service. There were no injuries, no fire, no environmental effects and no emergency response required.
2012-041	A technician responded to a "no reading" report at the Belloy West meter station on the NGTL Alberta System. There was no gas pressure to the thermal electric generator in the instrument building. Safety precautions were taken, hand-held meter readings indicated sweet natural gas was present within the building. The building was vented and the source of the gas leak was found to be a frozen and cracked pressure regulator. The regulator normally operates at 138 KPa. No estimates of the volume of gas released. The regulator was isolated and replaced. There were no injuries, no fire, no environmental effects and no emergency response required.
2012-042	The HO3 site is a manned sour oil processing battery in a remote location in Cameron Hills, NWT. A process upset at the battery resulted in 1 bbl of sour oil sent to the flare stack and being released from the top of the stack. The oil was sprayed on top of snow and contained within the plant boundaries. Paramount has sent a vacuum truck to the site to recover the oil. There were no injuries, no fire, no environmental effects and no emergency response required. Paramount reported the incident to the NEB at 09:30 a.m. before reporting to the NWT Spill Line. NEB staff advised Paramount to call the spill line, which then received the report from Paramount at approximately 10:00 a.m. The NWT Spill Line reported the event to the NEB at approximately 10:15 a.m.
2012-043	Small tarp caught fire. During operation of the horizontal directional drilling, a tarp came in contact with a motor and caught fire. The fire was extinguished with a fire extinguisher. No injury, no equipment damage, no other fire. Note this incident is on the Keystone XL Pipeline project in construction phase.
2012-044	Terminal piping system was overpressured by 120%. No visual damage. System has been shut down for inspection. No release of product.

2012-045	Workers discovered packing in a control valve leaking. Repairs are currently under way. Undetermined release of natural gas.
2012-048	Bobcat backfilling a newly installed pipe, was backed into a 2" riser, breaking off a 1/2" nipple, resulting in venting of sweet natural gas for a couple of minutes. The technician closed the valve and stopped the leak. No fire, no injuries. The contractor will conduct a follow-up investigation. The amount of gas released is undetermined at this time.
2012-049	Pipeline technicians discovered gas leaking from a fitting on a valve, While trying to tighten the fitting to stop the leak, technicians found the 1/2" weathered nipple was cracked at the threads. The technicians blew down the valve, stopped the leak and isolated the valve. The volume of gas leaked is undetermined, but anticipated to be low, possibly leaking for about one day. TCPL did not report whether there were any injuries or other impacts.
2012-051	Pipeline technicians discovered gas leaking from a valve at the valve stem packing, the technician tightened the packing and the station remains in operation. Fugitive gas emissions continue however the station cannot be shut down until regularly scheduled maintenance in August. No adverse effects expected and the valve will be monitored until repair can take place.
2012-052	Sewage overflow from top inspection hatch of sewage tank on to ground of fine gravel. Estimated at 10-15 L and 2X.5 metre area. Ground to be removed and replaced. Tank pumpout frequency to be increased and float level and alarm to be investigated.
2012-053	Welders were working in a ditch conducting maintenance work when the negative terminal of the welder caught fire. The crane operator at the job site saw the fire and extinguished the fire with a 30 pound extinguisher that was on-site.
2012-054	TNPI experienced an over-pressure incident on the Toronto Airport Junction pipeline. The pipeline was blocked-in, due to hydraulic expansion the pressure in the line rose to 1000 psi, the thermal relief valve did not release at 1000 psi, pressure continued to rise to 1123 psi and was then released by line control by opening the line 9 valve. The over-pressure occurred on 19th but there was no time provided.
2012-055	The company reported a line strike near Clearwater BC that occurred at approximately 12:30 PST today. The operator was driving when he noticed excavation operations on the RoW at a road crossing. The excavator was installing a bill board sign. The operator immediately shut down the excavation operations. It was determined that the equipment had contacted the pipe, causing some coating damage. The pipeline was then shut-in by line control. The Excavation company did not place a call-before-you-dig for a line locate prior to excavating. The company did not know anything about the excavation taking place and will daylight the pipe and examine it further to determine pipe integrity. The company contact is [REDACTED] at [REDACTED] s.19(1)
2012-056	During an inspection, a relief valve was discovered to be leaking sweet natural gas. No other information provided. OCR contacted the company contact to gather additional information. Company indicated their employee was responding to an odor complaint. Upon arrival, found a small amount of gas was escaping by the valve. No estimate on volume or duration of leak. Plans are in place to replace the valve today. Company notified local responders due to odor complaint but no third party response.



2012-057	Small oil fire on a gas turbine. Small misting of oil from a leak on a shaft seal of the turbine allowed oil onto the insulation around the exhaust. When the turbine shut down, the oil began to smolder which tripped the Fire Eye System. The operator responded and found a very small fire which he extinguished by placing his gloved hand over the area.
2012-059	A leak was discovered during planned hydrovac and excavation of the lateral to replace 800 m of pipe. The pipe was operating at a derated pressure of 5400 kPa when the leak was discovered at 8% of LEL and work was stopped. The area was evacuated and fenced off. Line remains in service and the company may lower the operating pressure further. The pipe will be evacuated of gas and cut out on May 28. No emergency response; no ignition; no injuries.
2012-060	Gas release was discovered by a technician when he heard a hissing and discovered a minor leak on a gasket on the bonnet of the monitor. The station had been inspected 30 April with no leak detected at that time. The leak has been isolated and repairs scheduled. Volume of release undetermined.
2012-061	Gas release was discovered by highway construction crews working adjacent to the pipeline RoW when they noticed bubbles in the water and reported the leak to the company on 2 May 2012. Excavation occurred on 8 May - leak confirmed. Minor leak on 1.5" cap off the mainline. Pipe has been daylighted - repairs underway. No impacts to people.
2012-062	A small fire occurred in pads being used by welder due to muddy conditions. Fire immediately extinguished by fire watch officer with no injuries or further damage. Glenavon pump station is 1 1/2 M sw of town of Glenavon at mile #504.
2012-063	Technician responding to noise complaint identified failed regulator valve for plant fuel system causing relief valve to open blowing off sweet natural gas. Technician took plant out of service and isolated fuel system. Estimated release at 200 cubic meters. Ramore is approx 10-12 kms SE of Matheson, ON.
2012-064	Technician performing fugitive emissions testing /inspection discovered a broken stem on a 1/2 in valve causing stem and valve to leak SNG. Technician blew down the valve and removed and replaced the unit. Estimated loss at 1m3. No injuries or other damage.
2012-065	Yard employee detected a leak in 3/8 in stainless tubing on the suction side of Unit C. Unit was isolated and the tubing was removed and replaced. Estimated loss at 500m3. No injuries or fire.
2012-067	Breaker cabinet at the Kabob South Metre Station was damaged from a grass fire that started adjacent to the station but outside of the fence. The grass fire started when a power line was taken down due to wind. The fire was extinguished and there were no injuries and no volume lost. The Metre Station is currently not operating awaiting repairs to the breaker cabinet..

2012-068	NGTL construction manager discovered a minor leak of sweet natural gas from a valve on the Sloat section of Lateral Loop 2.. A team was sent to repair it. Volume lost is minimal. No injuries, no fatalities.
2012-069	A slug of H2S gas at 40 ppm was measured at the Knight CS, exceeding the receipt level by 16 ppm. H2S was measured at 8 ppm downstream in the Schrader Creek CS. Alberta Delivery has been alerted that the gas has higher than contract specified H2S concentration. A blending operation is being undertaken to dissipate the H2S. NGTL is unsure which incoming line brought in the slug of H2S. The H2S is contained in the CS and downstream piping. No injuries or fatalities.
2012-070	A sub contractor was welding a grating on to a pipestand. The pipestand kicked out and the grating fell on to the welder's leg. The welder sustained a broken leg and was transported to hospital in Dawson Creek. Sunset Creek Compressor Station is 33 kms west of Dawson Creek, BC on Hwy 97. No other injuries reported. Time of incident not reported.
2012-071	A fire occurred in unit A1 (E-house) control cabinet, resulting in damage to the control wiring and high voltage monitoring equipment. The control panel has been locked out and no injuries or evacuation occurred. An investigation is under way to determine the cause of the fire.
2012-072	A tarp caught fire during welding operations on an elevated platform, no injuries reported. The enclosure was located on a platform being used for work on Tank #10 at the Greenfield Site, the welder was not inside when the fire occurred. The area was evacuated and after the fire was extinguished a safety stand-down was initiated. An investigation is ongoing and a report has been filed with appropriate provincial safety authorities. Note: On 2012-06-11 11:05 EST TransCanada Keystone Pipeline GP Ltd. reported the same incident to the TSB. The incident was reported on Friday directly to the NEB. Note added by Robert LeMay.
2012-073	Broken 3/8 piece of power gas tubing which supply the section valve released unknown volume of sweet natural gas. The system was blown down, the tubing was removed and replaced. The technician discovered a crack in the tubing. No injury, no fire.
2012-074	1/2 inch fitting corroded, part of a body bled on a valve. Fitting was repaired on site by technician. Sweet natural gas at a pressure of 1330 psi. Volume unknown.
2012-075	Corroded plug on a heat exchanger leaked. Release volume unknown. Pressure 1300 psi.
2012-076	Crude oil leaking from piping off of the D-42X well head. Estimated release is approximately 250 L to soil. Well has been shut in and release is confined to well site. Clean up has been initiated and an investigation into spill cause is underway.



2012-078	<p>Burned injuries. Two Westcoast employees were doing maintenance on a motorized valve when gas escaped causing a flash fire. Both staff were burned on their hands and face. First aid was on site and decision was made to have both staff medivac to Fort St-John Hospital. Maintenance work was ongoing at the compressor station. The site has been secured and is in safe mode. Note the incident happen sometime in the morning and no time was reported. Follow-up call to Westcoast: Westcoast HSO and Team Leader are travelling to the site. Ask for staff condition. [REDACTED] will call me back when he received an update. 2012-06-23 18:06 MST. Workers status: First worker: burned on his hands. Will be staying at the Fort St-John Hospital. Second worker: burned on his hands and face. Will be medivac to the Vancouver's burned unit. Incident: Staff were performing annual maintenance on a electrical operating valve. To set the valve operating limits staff need to be open the explosion proof enclosure. The valve stem leaked and gas found an ignition source. At 18:06 MST, the valve stem is still leaking and Westcoast is working on a plan to isolate and vent the valve. The valve is located within a 12 X 12 feet enclosure (roof and walls) for weather protection in the compressor station yard. NEB staff: equested that Westcoast takes photos of the valve and surrounding area. Westcoast should provide a second update later on tonight. 2012-06-23 20:42 Workers status: First worker: Released from the Fort St-John hospital and went home. He lives in Fort St-John. Second worker: Medicvac to Vancouver. Actual condition unknown as Westcoast staff was not able to speak with a practitioner at this time. Incident: Piping and valve are isolated and depressurized at this time. Westcoast started its investigation and should have the detailed station log on Monday. Note: No NEB staff were dispatched to the field. The NEB EOC was not activated.</p>
2012-079	<p>Hydrocarbon condensate leak occurred on E1055A inlet de-ethanizer reboiler. The leak was contained within the insulation and no liquid was spilled to ground. The system has been shut down with plans underway to prepare for inspection to determine exact location and cause of the leak. This will take 2 to 3 days for the erection of scaffold and other preparations. No volume is available until the insulation has been stripped from the vessel.</p>
2012-080	<p>A 12 volt battery exploded during the start up of a portable power unit. The unit had 2 batteries and only one was affected. Acid was released and contained within the protected shield with a small amount spilled onto the floor. No injuries - the room had been emptied for unit start up as per procedure. Area is being flushed and the battery has been removed.</p>
2012-081	<p>Rupture - pressure dropped at 22:57. Bonavista Operator reported a large fire to gas control. Nig Compressor Sation has been isolated. rupture is 1/2 mile from the station with nearest resident 3 to 4 km distant. Suspect fire has migrated into the trees. Forestry has been called. Stearing Committee: Joe P., Dan Barghshoon, Chris van Egmond with other available staff filling in during absences.</p>
2012-082	<p>Gas release suspected from a check valve gasket on the mainline between mp 20. [REDACTED] and 22 sw where the 6" Monias pipeline connects with the mainline. Odor complaint received. Valve has been shut in and the producer is shutting in. Two employees monitoring air quality - pipeline runs 1% h2s, which is local to the site of the release.</p>
2012-083	<p>The incident occurred at the Dryden creek compressor station. The TCPL technician was having trouble starting the PPU, the unit battery blew up. The battery was contained within a metal case so no release of acid or battery parts. The acid and battery were disposed, the battery replaced and the unit was started. There were no injuries, no fire, no environmental effects and no emergency response required.</p>

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2012-084	NGTL reports that a single battery within a bank of batteries experienced a power surge potentially caused by lightning strike. The single battery blew and some acid was spilled on the floor and walls within the electrical building. The batteries provide power to instruments. There were no injuries, no fire, no environmental effects and no emergency response required.
2012-086	Employees discovered a leak on a 1" stainless steel line from the dry seal filter to the compressor. Approx. 5 cubic meters of sweet natural gas released. Isolated/depressurized compressor and replaced O-ring. Employees then discovered a small crack in the block flange weld. The flange has been removed for repairs. There were no injuries, no fire, no environmental effects and no emergency response required.
2012-087	Field operator found the E-36X (mainland) surface casing vent released approx. 1.0 m3 of crude oil to the ground. The spill was confined to the well site. Clean up has been initiated, fluids on the ground are being removed by vacuum truck. The well has been shut in. The cause of the spill is to be determined.
2012-088	A fire occurred during maintenance hydrotest activities a contracted employee attempted to light a flame heater on the right-of-way. When the heater failed to ignite the employee checked the valve on the propane tank. The employee noticed that the valve on the tank was open however two of three valves on the vaporizer were closed. The employee proceeded to open all the closed valves allowing propane to travel from the vaporizer to three separate heaters. The employee was not aware that one of the hoses connected to one of the now opened valves was disconnected from one of the heaters. When the employee then attempted to ignite that flame heater, the propane that had leaked from the disconnected hose ignited. The employee quickly extinguished the fire with a fire extinguisher and closed the valve leading to the heater. There was no equipment damage or injuries because of the incident.
2012-089	As a result of issues during the start-up of the plant, employees were performing repairs which required the draining of sulphur. Approximately 8 tons (to be confirmed) of liquid sulphur was released into gravel on the company property. The sulphur solidified and has been removed along with the contaminated soil.
2012-090	A tree fell on one of the power lines to the meter station, tripping the circuit. Two batteries exploded in the Meter Station. The incident was fully contained in the Station. There were no fires, gas leaks or injuries. The batteries have been replaced. NGTL will inspect the Station for any other possible damage.
2012-091	A technician responded to an alarm from the TCPL Mainline Grenfell C.S. A power outage caused an emergency shutdown. The ESD worked appropriately except one isolation valve that did not seal properly. The technician did an inspection and reset the system. TCPL is still investigating. Estimated 1,400 m3 of sweet natural gas was released. There were no injuries and no fatalities.
2012-093	Battery Explosion - Power supply indicator in control room activated low power indication. Gas technician was dispatched to site. On arrival one battery was observed to have exploded and one battery is leaking. There was nobody in the building at the time of explosion. No injuries, no environmental effects. It has been isolated and an investigation is ongoing at this time.



2012-094	Release of Elemental Sulphur - An estimate of 20 tonnes of sulphur was released. Sulphur had migrated from steam system. As a result, technician had to drain 20 tonnes of sulphur from piping into temporary berm. It was drained as a liquid and cooled and cleaned as a solid. No injuries to report, and no environmental effects, no safety concerns. * Follow up with company with regards to delayed reporting. At the time of staff reporting the incident to supervisor it was stated the product was released into the berm and it was a controlled release. Further inquiry from the supervisor it was actually released onto gravel causing it to become an uncontrolled release making it reportable.
2012-095	Battery Explosion - Battery from 24 volt power supply system had exploded at Grand Coulee Receipt Meter Station. A measurement technician arrived on site to perform monthly maintenance and discovered battery acid on the floor. The battery bank was disconnected and put out of service for repairs and inspection. The Meter Station is running on utility power.
2012-096	E-35X supply and well head was shut in November 2, 2011 due to a suspected frozen line. On July 31, 2012 at approximately 11:30 AM while operations performed a fresh water pressure test on the E-35X flowline, a surface release was observed. Volume of the produced water injection flowline is $\pm 1\text{m}^3$ . Volume of fresh water used during the pressure test was $\pm 2\text{m}^3$ . The release occurred on the mainland floodplain <span style="background-color: #cccccc;">          </span> metres from the Mackenzie River. Release has been confined, with no fluid reaching water. Chloride readings were taken and results were approximately 800ppm. Clean up has been initiated and there is no anticipated adverse effects as a result of this incident. E-35X Line Details: the E-35X (Line #414) is produced water injection line located on the mainland floodplain. It was constructed in 1992, is 300 metres in length and is buried approximately 1 metre below the surface.
2012-097	Exhaust stack silencer caught fire. Technician using a fire extinguisher extinguished the fire twice as the hot pipe re-ignite the silencer a second time. No injury, no damage.
2012-098	Relief valve releases sweet natural gas on the domestic run at the station. Technician close the regulator to stop the leak. Estimated volume 100m <sup>3</sup>
2012-099	Technician was completing routine maintenance when he detected a leak at a nipple and valve connection. Technician repaired the leak while on site by tightening the fitting and the leak stopped. Estimated volume 0.001 MMsf
2012-100	Prior to commencing scheduled coating on the pipeline, a gas monitor check detected the presence of natural gas. A small leak was located at a flange on the pipeline that had been jacked-up for the coating work. The jacks have been lowered and repairs are to be completed. No volume available at this time, reported as a small leak.
2012-101	A winch box on a lawnmower trailer caught fire and was put out with a fire extinguisher.

s.16(2)

2012-102	On Aug 6th operator discovered small spill btb from M42 Stuffing Box failure. Estimated volume was less than 50 litres of crude oil, the well and supply was shut-in. As a result of heavy rainfall on Aug. 8th water accumulated on site bringing oil to surface. Additional clean-up measures initiated and ground disturbance has been completed. Impacted soil has been removed. Estimated volume now reported as 0.160 m2.
2012-104	Originally reported to damage prevention as unauthorized activity. Corral constructed on ROW using posts at 6 ft intervals. Suspected that 1 post contacted pipe. Pressure was dropped to 4400 kpa and pipe was daylighted in 2 sections 12-13 Aug and contact confirmed in 1 location. Coating was removed, scratch was repaired (grinding) testing was conducted and coating was replaced.
2012-105	A sewage leak of approx 1L from line leading from IORL warehouse to holding tank. Leak at elbow due to loose fitting. Fitting was tightened, area cleaned up and containment placed under fitting to prevent future leaks to ground. NT-NU # 12-332
2012-106	2 welders were fabricating a support beam for a flange using ox -acetylene torches. A welder's helper was grinding a gusset. Spray from the grinder ignited a hose from the gas bottles. The welders turned off the valves to the gas bottles and extinguished the fire using water. No injuries or other damage reported.
2012-107	Technician doing routine inspection found and repaired a small natural gas leak in a 1/2 in body bleed valve within the station. No estimate of volume or duration available.
2012-108	Crude release from expansion joint in pipe leading to tank #114 (shipping) which is out of service for cleaning. Containment was placed under leak but 380 L of estimated 465 L was spilled to ground and contained within berm. Line has been blinded near tank and isolated at other end. No details provided for clean up. Cause is under investigation. NT-NU Spill Report # 12-337.
2012-109	Sweet natural gas leak detected at MLV 78.1 (+ ) during sandblasting in area of pipe anomaly. Pressure at 930 kPa. Work stopped and area evacuated without ignition or injury. Area from MLV 78.1 to MLV 78.9 currently isolated while leak is being investigated. MLV 78.1 is 20 kms east of Jellicoe, ON.  s.16(2)
2012-111	AC power interrupted during intense electrical storm. Backup auxiliary failed and unit shut down. Suction and discharge remained open and as air system pressure dropped the unit vent valve opened. Sweet natural gas was vented to atmosphere for 20 mins until a technician could restart the unit and stop the blow off. Estimated volume of release at 34.9 m3. No ignition or injuries.
2012-113	SO2 leak from 30in process pipe leading to sulphur recovery unit at Ft Nelson Gas plant. On stripping insulation from pipe technicians found 12 small holes around a weld in an area of approx 1/2 in diameter. No duration for leak but a rate of 42 kg/hr estimated. Pressure in pipe has been reduced and a temporary patch will be affixed to the leak. Area has been cordoned off and air monitoring will continue. Readings at 10ppm currently. Operator reports no injuries and indicates that there is no risk to the public.



2012-114	Sweet natural gas release from fuel gas relief valve due to failed fuel gas regulator while plant was off line but fuel gas lines remained pressurized. Detected by technician who heard gas venting and stopped leak by isolating the fuel gas run piping. Fuel gas relief valves are designed to release if fuel gas regulator fails. Will need to determine which regulator failed. Volume and duration of release will be determined from period that plant was off line. No injuries, no evacuations, no risk to public and TCPL emergency plan was not activated.
2012-115	Landowner reported a release of sweet natural gas from the 10" Elmworth Gathering system in Alberta to the owning company. The release is from the pipe. Station U (d-43-H/93-P-1) to Elmworth Gas Plant (01-08-70-11 W6M Line; AO-1-XG-1-86 purchased by Conoco Phillips but operating as Burlington Resources.
2012-116	A gas release was discovered during routine maintenance. A company rep was conducting monthly maintenance at a meter station and was close to some tubing when he heard an audible leak. Further inspection determined debris got into the filter and caused a leak at the filter. Sweet gas released at 1 nsf/day.
2012-118	Small Welders Fire - While contractor was welding, the cable sheeting on contractor equipment caught on fire. The flame was small and immediately extinguished. Possible reason is heavier rods are being used causing the cable to overheat. Still to be investigated. No injuries.
2012-119	Fire - A grass fire occurred along the RoW. Approx 15'x100' along Row and next to a walking path. The Regina Fire Department was notified and extinguished fire. Once fire was out, the Fire Dept contacted Enbridge of the occurrence. Enbridge inspected the area and determined no threat to the line, and pressure was not reduced. No injuries to report.
2012-120	Release of H2S sour gas - The H2S detection system activated in the reaction furnace room of the facility. Operator initiated shut down. Staff evacuated to control room. After venting the building and initial inspection, it was determined a 3/4" nipple had failed on a 13 psi line and leaked for approx 10 minutes. Volume release to be determined. The nipple was repaired and the system has been restarted. No injuries or threat to public. No emergency services needed.
2012-121	Fugitive emissions from a leaking gasket at an isolated tank barrel door was reported. Volume of sweet natural gas is believed to be minimal. No injuries reported. M&NP has a crew on site.
2012-122	Arc Flash - An arc flash occurred at the service station transformer which shorted to ground resulting in damage to the transformer. The cause is unknown. The pump station is being shut down today for repairs and investigation. No injuries to report.
2012-123	Fugitive emissions of sweet natural gas were reported from a leaking fitting on a flange. It was discovered due to leaked product on tubing prior to recoating. Volume of sweet natural gas was not determined. No injuries reported.

2012-124	Technician conducting a routine inspection discovered 4% to 5% LEL gas readings on the east enclosure gas monitor when the enclosure fans were operating at low speed. A pin hole was found on a burner feed pipe from the fuel gas manifold. The unit was shut down, isolated the fuel gas and replaced the faulty burner pipe. The unit was returned to service. Volume of released sweet natural gas was not estimated, but was thought to be negligible.
2012-125	While taking off a sample of NGL, approximately 1 L of NGL was released as a vapour and set off the floor-level gas detectors in the densitometer building at the Plains Midstream takeoff.
2012-126	Operation Beyond Design Limits - Third party inline inspection reported a corrosion feature to TCPL on Sep. 01, 2012 (from an Aug. 30, 2012 inspection). TCPL derated pressure by 20% as a precaution. The feature was confirmed on Sep. 4, 2012. On Sep 10, 2012, a ground leak test was completed and no leak found. On Sep 13, 2012, line pressure was further reduced to 4800 kPa and the line was isolated at MLV 90. Currently, daily checks are being performed. Company plans to cap the pipeline at Gold Creek Compressor Station and effect repairs.
2012-127	Technician on site for regular maintenance discovered a leak of sweet natural gas from a 6" flange. No volume or release duration was given. The leak was subsequently fixed.
2012-128	During maintenance, personnel heard a loud noise from the maintenance building. There was a lot of smoke and a small flame inside a battery charger. a 30 lb extinguisher was used to put out the fire. Secondary damage included a couple of ruptured capacitors. No injuries and no emergency response initiated.
2012-130	Overpressure of 12% (to 112% of MOP) occurred while bringing online a fourth pump unit at the Lakesend Pump Stn. The station was shut down and isolated. The company is conducting a four hour leak check, no leaks have been identified.
2012-131	A leak was discovered by a technician from a crack in the threading on a needle valve, the product is sweet natural gas and the estimated loss to the atmosphere is 10 cubic meters. The technician was investigating a source of a potential leak on line 100-3 and discovered the leaking needle valve on a riser "toilet seat" downstream of the Rapid City Compressor Station. The bypass piping was blown down, the fitting is being isolated and will be replaced. Confirmation of the incident was not received from the field until the morning of the 27th and was reported to TSB shortly after.
2012-132	A fire occurred when liquids travelled up and left a flare stack during flaring operations. The valve to the stack was closed immediately and the fire self extinguished, no fire suppression was used. The fire caused damage to control cable, no injuries or risk to the public was reported.
2012-133	Packing around a valve stem was found leaking, product is sweet natural gas. No fire or injuries, no estimate of volume released. Was found during routine maintenance and the valve stem was tightened.



2012-134	An overpressure of 108.4% of contract pressure occurred on 09 September 2012, which is not reportable. Further review of the incident has shown that the overpressure was actually 110.7% of contract pressure, which is reportable. A phone message was left with [REDACTED] of TCPL at 17:15, 28 September 2012 in order to attain further information on the timeline and background of the report. Message was not immediately returned. s.19(1)
2012-135	A wooden skid pile had burned overnight on the Parkway East Project. The fire was away from the pipe under construction but adjacent to it. No damage to the coating occurred but soot was found on the coating. No injuries reported.
2012-136	Operations was notified of a water release at C-27, a produced water injection well. Operations immediately isolated the compromising piping and drained the line. Approximately 1.4 m3 of produced water released within the injection well shack and the surrounding area. Clean up has been initiated and investigation into the cause of the spill is underway. Report was initially submitted to the Government of NWT and later identified as NEB regulated and submitted to the incident phone.
2012-137	Description: Release - estimated 2 cubic metres of natural gas. While a unit test run was being conducted, during a walk around inside the compressor station a gas release could be heard. On further inspection revealed the seal for the filter differential pressure switch had a small crack. Crack was from 3/8" tubing. Personnel isolated the tubing and stopped further release. No ignition, no first responder, no environmental effects, no injuries.
2012-138	Release sweet natural gas - Through body leak on orifice plate holder. Detected during monthly inspection. Technician isolated run and blew down line. No ignition, no first responders, no environmental effects, no injuries.
2012-139	Operation beyond design limit - Occurrence of a sour gas spike resulting in sour gas block valve to react to spike. Reading was 15.8 ppm. Block valve attempted to close as it neared limit switch and returned back to open. Technician found selector switch in manual open position. Cause was of H2S spike was lost amine pump. Result, gas control blended sour gas slug to blow 6ppm on Worsley Lateral. Incident not on sales tap, thus no impact to customers. No release to atmosphere. Service has been return back to normal.
2012-140 s.16(2)	Release - Sweet Natural Gas - A landowner phoned in a report to gas control of dead vegetation of 20x20m on his land where there is a pipeline crossing. NGTL reports that gas monitoring has recorded 20 % methane at one metre soil depth, 6 % methane near the soil surface and no methane readings in the air. The line is still operational and left at the discovery pressure of 4800kPa. There are two land owners within 1 km of the area. They have been notified with appropriate actions to be taken. The nearest public country road is 800 m from site. There is no evidence of third party damage. The line is located [REDACTED] in the ground. The area has been ribboned off. NGTL is working on bringing in fencing to block off area with warning signage. NGTL feels the risk is minimal and there is no ignition source in the area. NGTL is in the process of arranging a crew from Calgary to dispatch and repair the line. NGTL will notify all gas co-op customers and producers prior to fully depressurizing the line. Then it will expose the depressurized line for repairs.
2012-141	Release NGL - Technicians were preparing to work on a sample pump that had seized during shipping of Natural Gas Liquid product. After it seized the 1" line and pump were flushed with OSA prior to repairing. The pump and line were isolated for repairs. When the system was opened to drain the OSA, residual trapped NGL vaporized to atmosphere causing the detection alarm to go off. The alarm detection device was located directly over the area, no threat to staff. Building was well ventilated. No injuries to report. No threat to staff or public.

2012-142	Fire - Employee was sandblasting the pipe. A cardboard box caught on fire which resulted in burnt wiring on the sandblast compressor. The fire was extinguished and repairs done to the wiring. No injuries to report.
2012-143 s.16(2)	PM operations were walking the Q-06 pipeline (Line #169) prior to conducting an integrity dig. At this time operations observed three separate surface stains found along a 100 meter stretch, along the Q-06 pipeline RoW on Goose Island (North end of Goose Island). The area of concern is approximately ■■■ meters from the Mackenzie River. The line in question is buried approximately ■■ meters below surface. The pipeline was immediately removed of its fluids and isolated. Spill volume in to be determined.
2012-144	While excavating, gas indicator on site detected gas in the area approx 9:30 am. Staff in area was evacuated until confirmation of gas was swamp gas or sweet natural gas from the line. Further monitoring confirmed at 17:15 the product was sweet natural gas. Delay in confirmation was due to mobilizing specialized detectors. The line was isolated between valve 46 and 47. Plan is to blow down line and continue excavation. Suspect possible dent in pipe leading to release. Loss unknown and rate of loss unknown. No injuries to report. Area cleared of staff.
2012-145	The auxiliary power start battery was noticed as being ruptured by the station technician during a routine inspection of the site. There was no fire or injuries. The auxiliary power system was taken out of service, with repairs pending an investigation. TSB Contact: Glen Pilon (819-953-1632 / Hot Line 819-997-7887)
2012-146	operation beyond design limits - H2S slug entered system from a failed block valve allowing gas to enter the system. Failure is due to suspected ice. Valve actuator vented small amounts. Gas control prior to notification contacted 3rd party gas plant and asked them to stop sending gas. Gas was successfully pulled back.
2012-148	An undetermined volume of gasoline was released when the take-off from the line downstream from the pressure control valve to meter manifold overpressured. Pressure went from 275 to 375 psi - 136% overpressure. A small overpressure also occurred on the meter manifold piping: 275 to 316 psi - 114% overpressure. There was a delivery to Suncor when a Suncor valve closed causing a blockage. The pressure release rupture disc burst and released product into a tank. Operator in Edmonton initiated shutdown within 1 minute. Field operator responded and also noted a 1 inch drain valve off the meter prover released 215 ml of gasoline onto a concrete pad. The drain valve will be replaced.
2012-149	Seal failed on a tank 202 mixer. 7.44 m3 leak into the property internal ditch network during the night and passed the valve of the containment berm. Oil and water was contained within the property. Enbridge is pumping clear water from the ditch into adjacent berm lot. Three vac trucks on site. Mutual aid was informed of the situation. No odour call received. Reporting was delayed as Enbridge first spill estimate was under 1.5m3. A revised estimate triggered the notification at 13:35.
2012-150	Leak of the tie over valve between Line 100-1 and 100-2. On 25 October, Technicians responded to a leak from the tie-over valve between Line 100-1 and 100-2. Technicians blew down and greased the tie-over valve and stopped the leak. The tie-over valve was then locked in close position. Today the valve was excavated using hydro vac trucks. Technicians confirmed a broken ½ inch tubing caused the leak. Verify PID, incident was not reported on the 25 October 2012.



2012-151	4 inch valve leak in closing position. During a pre-outage valve inspection the operator noticed that the 4 in valve body will not sit in the close position and started to leak when closing the valve. The leak stopped in the open position. The valve was left in the open position until a decision could be reached on the next step.
2012-152	Leak from a seal gas. Technician conducting an annual seal gas skid inspection when he smell gas as he was switching the primary to the secondary filter. Subsequent inspection determined that there were a small crack in the secondary filter housing. Technician isolated the housing and waiting for repair.
2012-153	Gas release. The valve is located within a building in a remote location on the Marten Lateral. Technician used the gas entry procedures and had a reading of 50% LEL. Operator vented the building to evacuate gas. Was not able to find the source of the leak as he did not have "snop" (Water and soap solution) with him. 2012-11-02 09:15 call for update. Technician is returning to the valve site. It is a two hour drive. TCPL will call back for an update. 2012-11-02 14:55 update. Technician was on site to cycle a combination of bloc and control valve at the Gas control request. To test the valve he has to go to the building which contain the valve MA50-0-CV. As per TCPL gas entry procedure the technician took a gas reading and had a result of 50% LEL. He opened the door to ventilate the building. He then took a second reading and had a result of 0 % LEL. Note: contrary to the first report the technician had "snop". However, the solution was for summer temperature and the actual temperature was below zero Celsius. The valve MA50-0-CV is vented to outside when it cycle. The technician suspects that one or two of the an "O" ring failed and which allowed gas to migrate through the electrical conduit back to the building. TCPL ordered a Fisher 546i-p controller to replace the equipment. It should be at the station on Monday.
2012-154	A technician arrived on site to complete regular maintenance and detected a small leak of sweet gas from a 1/2" treaded fitting that had become loose. The fitting was tightened and the leak was stopped. Technician was there last week and there was not gas leaking at that time. Fitting became loose over time.
2012-155	A construction worker discoverd a fire at midnight from the stack of a frost fighter (type of construction heater). The worker extinguished the fire and put the device out of service. No injuries; no evacuation. Device out of service pending an investigation.
2012-156	Sweet gas was released when workers were pressurizing of a piece of pipe and the regulator on the power supply to the control valves leaked. The leak lasted about 2 seconds from a 1/2" fittling.
2012-157	Sweet gas was released when a 1/2 " pipe nipple broke on the unit dishcharge pressure transmitter supply causing a gas release in the building which tripped the high gas detection resulting in an emergency shut down. worker diagnosed the problem, replaced the pipe nipple, reinstaffled a 1/2" valve and returned the unit to service. No other impacts and not emergency response.
2012-158	Gas reslease due to a faulty seal on a unit discharge valve. A compressor case was loading and venting and wasn't supposed to. Gas control received a shut down report and dispatched a technician to site. No fire, ER services, public risk or injury.

2012-159	Release of sour gas from below ground piping. 10 to 50 ppm H2S detected at a 200 meter radius beside the compressor station pigging facility. Company has blown down the piping. Two company workers responded using SCBA with 2 workers from another company providing back-up using SCBA. No H2S detected at gate and Bullmoose mine road closed. No threat to public. 22 Nov calculations provided by [REDACTED] From 2100 hrs Nov 17 to 0700 hrs Nov 18 5025 kgs of gas released at 26% hydrogen sulphide resulting in release of 1550 kgs of hydrogen Sulphide. Line pressure reduced from 1,000 psi to 880 psi.
2012-160	Steeplejack Scaffolding worker slipped and fell while walking at ground level fracturing a tibia.
2012-161	A pile of wood chips on the construction site caught fire. Workers extinguished the fire without injuries or further damage or risk to public. Wood chips were then hauled away. Parkway is 5kms SE of Kitcher On , 2 kms S of Hwy 8.
2012-162	During transfer of SNG from line 700-1 to 700-2 a leak was detected in a 1 1/2 in pipe nipple near the vent piping at the discharge connection. No line pressure provided, no time available. Estimated loss at 1 m3. System was isolated and nipple repaired. No injuries reported. Site at transfer compressor near MLV 706

s.19(1)



2011-029	<p>36" gas line ruptured, with ensuing fire. Line has been isolated and the fire is burning down. Command Post has been set up in Bearmore, ON, and a 4-km evacuation radius has been set up.</p> <p>TSB Contact: Ken Miller ([REDACTED])</p> <p>Update #2:</p> <p>Per my conversation with [REDACTED]</p> <p>TransCanada EOC in Calgary has been activated. [REDACTED] is on a conference call.</p> <p>Evacuation radius is 1 km, not 4 km as shown below. Fire is diminishing. [REDACTED] has spoken with Ontario Provincial Police.</p> <p>Five (5) technicians are on site. Valve positions are being confirming. Low pressure shut-offs worked as designed. Situation is under control.</p> <p>Per my conversation with [REDACTED]</p> <p>TC has not received confirmation as to whether TSB will be sending any one to the site. (Ken Miller will be speaking with [REDACTED])</p> <p>A couple of residents on the outskirts of Bearmore voluntarily evacuated, but have since returned to their homes. No forced evacuations took place.</p> <p>The OPP have closed the highway nearby. (The highway is approximately 1 km from the line rupture.)</p> <p>An approximate time for the remaining gas to burn off is not available at this time, but it may be a couple of hours until the fire is out.</p> <p>Update #3:</p> <p>NEB is sending two inspectors to the scene, Robert LeMay and Erin Doerffer are leaving Calgary at 09:30 and should be on site at ~19:00 on February 20th</p> <p>At 01:45, February 20th, [REDACTED] (TransCanada) provided the following update:</p> <ul style="list-style-type: none"> <li>- On-site company contact will be [REDACTED]</li> <li>- Fire is ongoing - ~40' in the air.</li> <li>- There is no secondary fire.</li> <li>- There is a tie-over valve that is not sealing completely, allowing gas from Line 3 to back-feed into Line 2 and feed the flame.</li> <li>- Once the flame is extinguished, they will work on access to the site, approximately MLV 76+10; exact location will not be confirmed until access is obtained.</li> <li>- From maps, Lines 2+3 are believed to be in the same corridor (~ 9-10 metres apart) while Line 1 is further away. Again this cannot be confirmed until crews confirm exact location.</li> </ul> <p>" Lines 1 and 3 will not be brought back in service until visual inspection confirms they were not impacted. Presently both lines are holding pressure.</p> <ul style="list-style-type: none"> <li>- Hwy 11 remains closed; traffic can choose to reroute on Hwy 17.</li> <li>- Command Post in Bearmore is staffed by the OPP, local Fire and TransCanada.</li> <li>- TSB has advised that Don Mustard will attend with three other TSB staff pending.</li> </ul> <p>NEB Staff have made the following notifications:</p> <ul style="list-style-type: none"> <li>- NRCan - EOC</li> <li>- Public Safety - GOC</li> <li>- Ontario MOE - Spills Action Centre</li> <li>- Ontario Provincial Police</li> <li>- Emergency Management of Ontario (message left) <ul style="list-style-type: none"> <li>- Further attempts will be made to reach Environment Canada</li> </ul> </li> </ul> <p>The NEB EOC has not been activated; calls can be directed to Wes Elliott at [REDACTED] on Sunday/Monday.</p> <p>Update #4:</p> <p>At 10:45 MST, [REDACTED] (TransCanada) provided the following information:</p> <ul style="list-style-type: none"> <li>- The fire was extinguished at 06:15 MST</li> </ul>
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- At 06:45, the TransCanada EOC in Calgary was stood-down and the process started to put Line 100-1 back into service. Lines 100-2 and 100-3 remain out of service.
- On-site TransCanada staff have confirmed integrity of Lines 100-1 and 100-3. Line 100-1 is 70 feet away from Line #2 and Line 100-3 is 35 feet away from Line 2 - full ground cover remains for both Lines 100-1 and 100-3 - neither line was exposed or impacted.
- As previously reported MLV 76- 2 to -3 downstream tie-over had a sealing issue, TransCanada is now reporting that 2-3 upstream tie-over is also suspect, as a result Line 100-3 will remain out of service until maintenance is completed on both tie-in valves ( maintenance crews onsite)
- Line 100-3 and 100-2 are shut-in between Compressor Stations 75 and 76. Presently there is no gas in Line 100-3 that can back-feed into Line 100-2.
- TransCanada intends to bring Line 100-3 back into service as soon as maintenance is completed on tie-in valves. At that time, monitoring will be conducted at rupture location to ensure gas is not bleeding back into Line #2.
- If Line 100-3 remains out of service for an extended period, there could be supply issues for eastern Canada Line (100-3 is the largest pipe 42")
- Re-routing options are
  - First option is to get Line 3 operating, then there will be no supply issues
  - Second option is to check at Winnipeg to see if there is capacity to increase flow through the Great Lakes Gas Transmission System (yet to be determined)
- Lead safety person for TransCanada will be [REDACTED] when he arrives at incident
- [REDACTED] confirmed that there were no pressure reductions in place for any of the Lines

CBC Radio - Thunder Bay has called the NEB Incident phone and response will be through our Communication person.

[REDACTED] from TransCanada to provide an update on status of Line 3 later today and I will send out that information as soon as possible.

Update #5:

At 13:05, MST [REDACTED] (TransCanada) provided the following information:

- Line 100-3 remains impacted and out of service due to the rupture of Line 100-2
- As reported, MLV 76 2:3 downstream tie-over which is a gate valve is not sealing and MLV 76A 2:3 upstream tie-over remains suspect. Both are gate valves
- single seal - with no provision for double block and bleed. As a result, they will be relying on Chameleon Grease to fill any release points / gaps.
- TransCanada has 14 pails of Chameleon Grease in transit from North Bay, 20 pails from Thunder Bay and a further 31 pails from Spruce Grove, AB. (A challenge will be introducing the grease into an unpressurized line.)
- TransCanada is constructing temporary structures around the valves to contain heat that will be introduced through ducting from portable heaters.
- On MLV's up and downstream from the rupture, air movers will be installed on the risers.
- The earliest Line 3 will be in-service is Monday, there is insufficient grease on scene today to ensure both valves are sealed.
- Firm deliveries will not be impacted on February 20th nomination day and the outlook for February 21st is presently positive.
- Discretionary deliveries are impacted, the impact today is 600gj of discretionary service. The local distribution companies (LDC's) will have their own contingency plan to deal with the shortfall.
- TransCanada is not in a force majeure situation for February 20th and the situation for February 21st is dependent on whether firm service demands increase.
- As reported in update 4, the Great Lakes system is not/not an option, there is no spare capacity. The only option is to have Line 100-3 back in service.
- Presently there is no vehicle access to the site, snowmobile access only, 2 kms from the nearest access point.
- Limited supplies available in the community.
- A flyover will be attempted tomorrow once TSB and NEB Staff arrive.
- TransCanada continues to protect the scene, nothing is being disturbed pending TSB/NEB arrival. The only activity is building an access road.
- No evidence of third party interference.



- The rupture appears to be at an over-bend at the crest of a hill. Trench is filled with shot-rock but TransCanada staff have observed a swamp weight exposed.
  - Flyover to provide exact GPS location.
  - TransCanada will provide photographs.
  - Three TransCanada integrity staff travelling to the scene, [REDACTED] and [REDACTED]
  - TransCanada has a conference call planned for 08:00 MST on February 21st and will provide a further update at that time.
- NEB Staff, Robert Lemay and Erin Doerffer are on schedule to arrive tonight at 19:30 local time.
- Update #6: Sunday 2011-02-21 at 12:00 MST - Update #6
- At 10:15, MST [REDACTED] (TransCanada) provided the following information:
- No personnel at the rupture site this AM until safety assured.
  - Communications on site is an issue with Bell being the only provider available in the area.
  - Firm deliveries will be met on the February 21st nomination day and an update will be provided later in the day for tomorrow's outlook.
  - TransCanada has ceased discretionary deliveries.
  - At this time, the earliest that TransCanada estimates that line 100-3 will be brought back into service is Tuesday evening.
  - ICS roles and contact information have been provided to the NEB by TransCanada.
  - 20 pails of Chameleon grease have been pumped into MLV 76-2:3.
  - 12 pails of Chameleon grease have been pumped into MLV 76A-2:3.
  - Air movers are currently being used at MLV 76 and MLV 76-A in 100-2 to expel residual gas.
  - Pipe may have filled with water and created an ice plug. Currently there are no pumps at the site to empty water from the pit.
  - Topographical and investigative survey of the rupture site will be conducted over the next two days.
  - Muster point will be designated on ROW.
  - Helicopter is on route from Toronto and a fly over is planned for this afternoon.
  - OPP is currently on site and will be until 20:00, TransCanada has arranged for private security to take over 24x7 from then on.
  - TransCanada plans daily closeout meetings.
  - A further update by the NEB will be provided later today.